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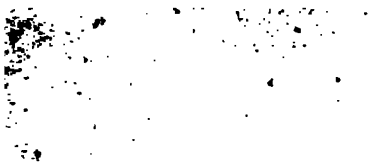


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NEW SAILING DIRECTIONS
FOR THE
MEDITERRANEAN SEA,
THE
Adriatic, or Gulf of Venice,
THE BLACK SEA, GRECIAN ARCHIPELAGO, AND THE
SEAS OF MARMARA AND AZOV :

CONTAINING
*INSTRUCTIONS FOR NAVIGATING THE VARIOUS COASTS, ISLANDS,
BAYS, PORTS, AND HARBOURS,*
AND FOR AVOIDING THE NUMEROUS ROCKS, SHOALS, AND OTHER DANGERS IN THOSE SEAS:

TO WHICH ARE OCCASIONALLY ADDED
*Concise Accounts of the Customs, Manners, and Commerce of the Inhabitants ; with the
Produce, Imports, Exports, and geographical Positions of the principal Places.*

COMPILED FROM THE CELEBRATED
Scientific & modern Surveys, Voyages, & Travels
OF
CAPTAINS SMYTH, BEAUFORT, LYON, FRANKLAND, IRBY, MANGLES, WILSON,
MIDDLETON, TOFINO, GAUTTIER, MARIGNY, AND ZANNONI ;
MESSRS. KENDRICK, HOLLAND, TURNER, CARNE, GALT, AND OTHER
DISTINGUISHED NAVIGATORS AND TRAVELLERS.

WRITTEN TO ACCOMPANY AND ILLUSTRATE
THE NEW LARGE CHART OF THE MEDITERRANEAN SEA, &c.
By J. W. NORIE, Hydrographer,
AUTHOR OF A NEW AND COMPLETE EPITOME OF PRACTICAL NAVIGATION, &c.

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A D D E N D A.

APRIL, 1841.

EUROPA POINT. On the 26th April, 1838, the foundation-stone of a *lighthouse* was laid on *Europa Point* by his Excellency Major General Sir Alexander Woodford, K. C. B., &c., &c., Governor and Commissioner in Chief of the *Town of Gibraltar*. The *lighthouse* will stand on a platform 38 feet square; the diameter of the column at its base will be 27 feet, and its height 60 feet. It will be surmounted by a lantern 10 feet high, and will exhibit a very powerful light. (Page 4).

CAPE DE GAT. Captain Toup Nicholas, of H. M. S. *Bellisle*, has made the following report of an important unknown danger off *Cape de Gat*. "On the 13th of August, 1840, when coming down the Mediterranean near *Cape de Gat*, and when I had stood in-shore to get a fresher breeze, seeing the vessels near the land with much more wind than we had, we passed a sunken rock, looking green, close outside of us, when full a mile, and in my belief nearer a mile and a half from the shore than a mile, if not more.

"I should further state, that before the sunken rock was reported on our port-bow, I had observed to those around me on the poop, that I was sure I saw with my spy-glass the water breaking on the known rock at about half a mile off the point of *Cape de Gat*, and which I still feel confident I did. We were steering W. N. W. to W. by N. by compass, and had just got the fresher breeze, for which I had stood nearer the land. The old building, or *Fort* on *Cape de Gat*, bore about N. N. E. by compass, and the white mark in the rock to the eastward of the *Cape* about N. E. by N. by compass; variation just two points westerly." (Page 18).

VALENCIA. On the N. E. point of the semicircular mole is a *fixed* light, elevated 37 feet above the level of the sea, and visible 12 miles off in clear weather. (Page 27.)

ALFAQUES. The following is an extract of a letter received at Lloyd's from their Agent at Terragona, dated March, 1835. "It is of great importance, though not generally known, that from the great discharge of water from the *Ebro*, extending a long way to sea, and at the distance of four or five miles from its mouth, an eddy is found on both sides, but mostly and much stronger on the north side of the river, which carries with it all bodies within its reach and along shore, until they are thrown on the extreme end of the sand-banks and quick-sands, where by the meeting of both the currents, a heavy surf is occasioned, and which is often the cause of great loss.

"As the N. W. wind prevails much on this coast during the winter, and as it is generally very strong, masters of vessels are encouraged to cling to the shore as close as they can, to avoid being driven to the S. E. or to seaward; but in doing so, if the wind happens to subside, they are not aware of their danger in keeping so close to land, by being brought imperceptibly into that vortex, from which they can only extricate themselves but through the most fortuitous circumstances. On sailing down the coast, the *Banks of Alfaques* are not easily discerned, owing to the back country being extremely high; and as the low banks run out a considerable distance from the mainland, an extensive bay is formed, which deceives the mariner, who is under the impression that he has a free passage and open sea before him, and is often not undeceived until too late to avoid getting into difficulty. To avoid every danger, he should stretch well out to the S. E., and allow a good offing of 25 miles to clear all casualties." (Page 28).

CAPE BEARN. On the Mount of *Cape Bearn*, at 875 yards S. E. from *Port Vendre*, is a *lighthouse* erected, the lantern of which is elevated 722 feet above the

level of the sea, and exhibits a *fixed light*, which is visible in fine weather at the distance of seven leagues. (Page 53).

VENDRES. A *fixed light* is shewn in the *Port du Fanal*, on the starboard side of the entrance of the harbour: this is elevated 108 feet 3 inches, and may be seen in clear weather at the distance of 2 or 3 leagues. (Page 53).

LA NOUVELLE. This is a *harbour light*, placed at the extremity of the western jetty, on the larboard side of the entrance of the channel: it is a *fixed light*, and elevated 36 feet above the level of the sea, and visible 3 leagues in fine weather. (Page 54).

FORT BRESCOU. A small *fixed light* is established on the S. E. bastion of *Fort Brescou*, one league to the E. of S. (E. S. E.) of the mouth of the *River Herault*. This light is 59 feet above the level of the sea, and may be seen in fine weather, at the distance of three sea-leagues. (Page 54).

MOUNT ST. LOUP, or AGDE. (Department of Herault.) An *intermittent light*, at intervals of one minute each, on *Mount St. Loup*, situated 3½ miles N. 66° 30' E. of the mouth of the *River Herault*. This light is elevated 413 feet above the level of the sea, and may be seen in fine weather at the distance of nine leagues; but the light will not disappear entirely, unless the distance be more than 4 leagues. (Page 54).

AGDE. A *fixed light*, standing upon the extremity of the eastern jetty, on the starboard side of the entrance of the channel. This is a harbour-light, elevated 90 feet, and visible in clear weather about 3 leagues. (Page 54).

CETTE. A *fixed light* is placed upon *Fort St. Louis*, at the extremity of the mole, on the larboard side of the entrance to the harbour: its elevation is 82 feet, and it may be seen at the distance of 4 leagues. (Page 54).

The following official Notice was issued from the Chamber of Commerce, Marseilles, 23d November, 1831.

Navigators are to take notice, in order to facilitate the entrance to the *Port of Cette* by the N. E. passage, the only one that should be attempted during the winter months, when the bad state of the weather prevents the local pilots from going out to vessels, that in the month of October a *sea-mark* was erected near the foot of the mountain, a little to the south of *Fort Richelieu*. The building is in the form of a quadrangular pyramid, the height of which is about 60 metres (197 feet) above the level of the sea.

The eastern face of the building is painted white, with a black lozenge in the middle of it for a day-signal; and two *revolving lights*,* one above the other, have also been placed on it for night.

This provisional light may be seen four leagues at sea, and the two lanterns of which it is composed, may be distinguished from each other at the distance of a mile and a half from the port.

In order to take the N. E. passage during the day, it will be necessary to bring the lighthouse on *Fort St. Louis* on with the new building; and by keeping them on with each other, they will lead through the middle of the channel. It will be easy to do the same at night, by bringing the light on *Fort St. Louis* on with the two lights of the *Pyramid*, now established as a provisional light.

Navigators should, nevertheless, guard against the current, which sets strongly to the S. W. when the winds have blown long from the N. E.; and it will be best for ships arriving from the N. Eastward, instead of following exactly the above directions, to keep the new light a sail's breadth open to seaward of the light on *Fort St. Louis*.

With the wind from the S. E., ships should keep the new light on with that of *Fort St. Louis*, taking care never to open them to the southward.

Transmitted by M. the Director General of Bridges, Roads, and Mines.

(Signed)

M. ROUSSIER,

(Page 54.)

Secretary to the Chamber of Commerce.

* In a French list of Lighthouses, corrected to 1836, these lights are stated to be *fixed*.

AIGUES-MORTES. There is a lighthouse erected upon the mole to the N. Westward of the *Gran du Roi*, 557 feet from its extremity, and on the larboard side of the entrance to the channel: it bears a fixed light, varied by flashes every four minutes, being elevated 60 feet above the level of the sea, and visible in clear weather at the distance of five leagues. (Page 55).

CAMARGUE. Since 1830 a temporary fixed light has been shewn on the left bank of the mouth of the *Old Rhone*, about two miles S. S. E. from the *Tower of Genest*; but in September 1840, the following Notice was issued:—“*La Camargue Lighthouse*—a fixed light on the tower recently built, 60 yards N. 37° W. of the old lighthouse. This light is 118 feet above the level of the sea, and may be seen in fine weather at the distance of five leagues. The small light, established in 1830, on the east bank of the river, in latitude 43° 20' 30" N., and longitude 4° 20' 52" E., will be discontinued when the above light is shewn.” (Page 55).

BOUC. Two harbour-lights are now exhibited at the *Port of Bouc*—one erected upon the mole-head on the larboard side of the entrance; the other shewn from the tower of the fort which stands on the starboard side: the former is elevated 52 feet above the level of the sea, and visible 3 leagues; the latter 98 feet, and may be seen at the distance of 3½ leagues. They are both fixed lights, being distant 306 yards from each other. (Page 56).

ISLAND OF PLANIER. The lighthouse on the *Island of Planier* exhibits a revolving light, the eclipses succeeding each other every half minute; its elevation is 131 feet, and may be seen in fine weather 7½ leagues. In ordinary weather, the eclipses of this light do not appear total until the distance is greater than four leagues.

MARSEILLES. Two harbour-lights: the first is placed on the parapet of the covered way at the foot of the *Tower of Fort St. Jean*, on the left in entering the port, and is a fixed light, elevated 30 feet above the level of the sea; the other is situated on the *Point of Tete de More*, between the *Coves of Roserve and Pharo*, and on the starboard hand in entering. It is an intermittent light, the flashes of which are repeated every three minutes, being elevated 62 feet above the level of the sea. In fine weather both these lights may be seen at the distance of 3 leagues; but on the S. W. bearing they are both concealed by the hill called *la Butte du Pharo*. (Page 57).

PORT DE CASSIS. A fixed light on the west side of the entrance to the port, situated 132 yards to the N. W. from the mole-head, and to the East of the same entrance. (This light is 92 feet above the level of the sea, and may be seen at the distance of 3 leagues. (Page 58).

LA CIOTAT. A harbour-light is exhibited on the fort at the starboard side of the entrance of the harbour; it is a fixed light, is elevated 82 feet, and visible in clear weather about 3½ leagues. An additional light has lately been established on the little tower erected on the new mole-head, on the east side of the entrance to the port, 120 yards to the S. E. of *Fort Berouard* lighthouse. The mole-light, although less elevated than that on the fort, will be seen nearly the same distance in fine weather—that is 3 leagues. This second light of *Ciotat* will prevent the probability of any confusion which might be apprehended from the establishment of the fixed light at *Port du Cassis*. (Page 59).

HYERES ISLANDS. On the south point of *Porquerolles Island*, between *Cape d'Arme* and *Cape Roze*, is a lighthouse, which exhibits an intermittent light, the flashes of which are repeated every four minutes. The steady light between the flashes lasts from two to three-quarters of a minute, and may be seen about seven miles. The elevation of the lantern is 52 feet above the ground, and 262 feet above the level of the sea, and in clear weather may be seen at the distance of 7 leagues; though within the distance of 3 leagues the light does not wholly disappear.

On the eastern point of *Levant or Titan Island* is a fixed light shewn from a building, the lantern of which is 39 feet above the ground, and 246 feet above the level of the sea. This light may in fine weather be seen at the distance of 5 leagues. (Page 61).

CAPE LARDIER. On the summit of *Cape Lardier* is a lighthouse exhibiting a revolving light, the flashes of which are repeated every minute, and in clear weather may be seen more than 8 leagues; the lantern is 66 feet above the ground, and 427 feet above the level of the sea, but when within the distance of 3 leagues, the light does not wholly disappear. When at 6 or 7 leagues' distance, this light can only be distinguished from other intermittent lights in the vicinity, by a strict attention to the time of its revolution. On *Cape Tuillat* is a tower, which in daytime might be mistaken for the lighthouse on *Cape Lardier*. (Page 63).

CAPE GAROUE. On the Peninsula of *La Garoue* a tower has lately been constructed, about a mile and a half to the southward of the Port of *Antibes*, and near the Chapel of *Notre Dame de la Garde*, from which a fixed light is exhibited. The light is elevated 82 feet above the ground, and 338 feet above the level of the sea, and in clear weather may be seen at the distance of 7 leagues.

In approaching *Antibes* from the eastward, mariners will see the intermittent light of *Villa Franca*, which stands on *Point Mala*, and also the flashing light at the entrance of the Port of *Antibes* (noticed the next), at the same time that they see the fixed light of *La Garoue*; but this last-mentioned light alone will be seen by mariners approaching it from the southward or south-westward, until they have rounded the peninsula. (Page 64).

ANTIBES. At the extremity of the Eastern Mole a small tower has been recently erected, from which a small fixed light, varied by flashes, which appear regularly every two minutes, and last from four to five seconds. In clear weather the fixed light may be seen at the distance of 3 leagues and a half. (Page 64).

VILLA FRANCA. Notice has been received, that instead of the old fixed light on *Point Mala*, at the eastern side of the entrance of *Villa Franca Bay*, an intermittent light has been established. The flashes succeed each other at intervals of half a minute, in order to distinguish it from the light of *La Garoue*, which is fixed, and from that of *Port Antibes*, which revolves in two minutes. The faint light which appears in the intervals between the flashes is preceded and followed by short eclipses. The height of the light above the level of the sea is 223 feet; so that it is visible at the distance of 20 miles to an eye elevated 10 feet above the water. (Page 65).

GENOA. The following notice issued by the Admiralty at *Genoa*, has been received at Lloyd's from their Agent at that port:—

"Navigators are advised that from the date of the 15th January, 1841, and after, the illumination of the *Pharo* of the *Grand Lantern* of this port, which is built on the extremity of the *Promontory of St. Benigno*, will be effected by means of lenticular apparatus of the first order. The flashes of light and eclipses will succeed each other from minute to minute. The elevation of this light is found to be 114 feet, metrical measure, above the level of the sea, ordinary tide. Its appearance in clear weather will be visible at the distance of 10 marine leagues. The less brilliant fixed light in the intervals between the flashes will be clearly distinguished at 5 marine leagues, and the eclipses will not be total but beyond the said distance."

At the extremity of the *New Mole* is a harbour light. (Page 68).

TINO ISLAND. A lighthouse is erected on *Tino Island*, which exhibits a fixed light, with an apparatus of lenses. Its height above the sea is 384 feet, and visible at the distance of 8 leagues. (Page 70.)

CIVITA VECCHIA. The *Diario di Roma* announces that a new lighthouse has been established at the entrance into the Port of *Civita Vecchia*. It is placed on the old tower of the rampart. A sheet of metal, to which a rotary motion is given, makes a revolution in thirty seconds, so that the reflection from it is hid during twelve seconds, and is visible for eighteen seconds. It is very effective, and throws a strong light to the distance of 16 Italian, or more than 23 English miles. (Page 96).

CAPE ST. VITO, SICILY. N. W. & N. (N. N. W.) from *Cape St. Vito*, distant 21 miles, is a coral shoal, examined by Captain W. H. Smyth, on which he gave the

least water 27 fathoms; since which time there is reported to be a reef of only 14 feet exactly in the place where the 27 fathoms were marked. (Page 123).

GRAHAM'S VOLCANIC SHOAL. This was first seen to rise out of the sea, and form an island, on the 10th July, 1831, and by August had obtained the height of from 80 to 170 feet; after which the irruptions gradually subsided, and by the 3d January, 1832, the island had entirely disappeared. Towards the end of the same month it was found to have left a shoal of from $2\frac{1}{2}$ to 3 feet water. In December 1837 it was visited by H. M. S. *Princess Charlotte*, when it was found to have 9 feet water on its shoalest part, with the depths increasing gradually to the N. W. into deep water. The bearings and distances from *Pantellaria S. E. Point* were W. $\frac{1}{4}$ N. (*N. N. W. $\frac{1}{4}$ W.*) 40 miles; from *Granitola S.* by E. (*S. $\frac{1}{4}$ W.*), 25 miles; and from *Cape San Marco S. W. $\frac{3}{4}$ S.* (*S. W. $\frac{1}{4}$ W.*), 24 miles; but in the *Nautical Magazine* for October 1840, we find an extract of a letter from the Mediterranean, stating that this shoal had been searched for, and the bank that surrounds it had been found with 32 fathoms, but that no further traces of the shoal part could be discovered. (Page 126).

CURRENT ISLAND. The following is an extract of a letter received by us from Mr. Cuthbert Hodgson, dated Falmouth, 6th August, 1837:—

“On the 17th of June last, the brig *Empress*, of Sunderland, under my command, from Catania (Sicily) to England, with a cargo of sulphur, grounded on a shoal about $3\frac{1}{2}$ miles distant from the outermost point of *Current Island*, which bore from the situation of the ship E. $\frac{1}{4}$ N. (*E. by S.*): there were where she struck, which appears to be the shoalest part of the bank, 13 feet water. The extent of it is apparently but small; and from the vessel having reached from the land 2 or 3 miles before she came to the ground, and being ultimately got off by being hove towards the shore, it cannot possibly be a continuation of a shoal from the main-land. After remaining aground seventeen hours, she was, by discharging part of the cargo, got off, without having sustained any apparent material injury.” (Page 133).

GALLIPOLI. We are informed that the light tower at Gallipoli is now no longer lighted. (Page 151).

TRIESTE. The lighthouse of Trieste is situated on the battery at the end of the mole of *S. Teresa*. This is a fine round tower, constructed of grey marble, brought from the mountains of *Carsa* in Carniola. The height of the lantern above the level of the sea is 106 feet, and it exhibits a revolving light, which in clear weather may be seen at the distance of 12 miles. (Page 162.)

DURAZZO. H. M. S. *Talbot*, in coming out of the Bay of Durazzo, on the 26th October, 1839, passed over a mud-bank which lies in the very centre of the bay, not laid down in the charts; but fortunately did not receive the least injury, it having 15 feet water on it. (Page 178.)

PAXO ISLAND. A fixed light on a cliff in the vicinity of *Lacca*, the N. W. point of the *Island of Paxo*. The top of the lantern is 369 feet above the level of the sea, having 60 common oil-lamps or burners, and has been distinguished at the distance of 14 miles. From the lighthouse *Cape Bianca* bears N. $\frac{1}{4}$ E. (*N. by E. $\frac{1}{4}$ E.*), *Parga Castle*, E. by N. $\frac{1}{4}$ N. (*East.*) To the westward of *Paxo* this light can be seen till it bears N. $\frac{1}{4}$ W. (*N. by E.*), when the high land of *Paxo* intervenes; and in coming from the southward between *Paxo* and the main, it is not seen for the same reason until it bears W. $\frac{1}{4}$ S. (*W. by N.*), so that it can be seen from all points of the compass, except between N. $\frac{1}{4}$ W. (*N. by E.*) and W. $\frac{1}{4}$ S. (*W. by N.*) When the light bears S. S. E. $\frac{1}{4}$ E. (*S. by E.*), you are in a line with a rock off the north end of *Paxo*, which lies about half a mile from the north part of that island, having only 5 feet on it, and 17 fathoms close to.

Vessels coming in from the westward between *Paxo* and *Cape Bianco*, by bringing this light on a S. S. W. $\frac{1}{4}$ W. (*S. W.*) bearing till *Gayo* light bears S. $\frac{1}{4}$ E. (*S. by W.*), and then steering N. $\frac{1}{4}$ E. (*N. by E. $\frac{1}{4}$ E.*) will be carried well clear to the S. E. of the *Bianco Shoal*. (Page 189.)

SANTA MAURA. This light is 45 feet above the level of the sea, and is on the

mole-head of the harbour of the same name, in the *Island of Leucadia*, or *Santa Maura*. In running for the mole in the night, the light should not be brought to the eastward of E. S. E. $\frac{1}{2}$ E. (S. E. by E.), as there is a low point of beach which stretches out some distance. (Page 192.)

GUARDIANA LIGHT is situated on the S. E. point of the small low island of the same name, at the entrance of the *Bay of Argostoli*, in the *Island of Cephalonia*. It is a fixed light at 122 feet above the level of the sea, and is intended to shew the position of *Guardiana*, as well as to serve as a guide to vessels entering the most important bay in *Cephalonia*. At *Theodore Point*, within the entrance of the harbour on the eastern side, is a harbour-light. (Page 195.)

ZANTE LIGHT is situated on *Point Krio Nera*, the N. W. point of the *Bay of Zante*. It is 66 feet above the level of the sea, and is intended to point out the position of the anchorage, and the shoal off *Point Krio Nera*. This light is shewn from 16 lamps. The following are the bearings from the lighthouse: *Cape Capri*, *Cephalonia*, N. by W. (N. $\frac{1}{2}$ E.); *Castel Tornese*, *Morea*, E. N. E. $\frac{1}{2}$ N. (E. by N. $\frac{1}{2}$ N.); *Point Basiliko*, *Zante*, S. E. $\frac{1}{2}$ E. (S. E. by S.).

Another small light is placed on the mole-head, 28 feet above the level of the sea. Vessels are cautioned against mistaking any of the numerous lights on the shore for this light. (Page 198.)

STROPHADES. This lighthouse is situated on *Convent Island*, the largest of the *Strophades*, or *Stamphane Islands*; the light is 127 feet above the level of the sea, and is produced from 70 lamps. The following bearings are from the lighthouse. The west end of *Zante*, N. N. W. $\frac{1}{2}$ W. (N. by W. $\frac{1}{2}$ W.); *Cephalonia*, summit of *Black Mountain*, N. by W. (N. $\frac{1}{2}$ E.); *Mount Skopo*, *Zante*, N. $\frac{1}{2}$ W. (N. by E.); *Prodano* highest point, S. S. E. $\frac{1}{2}$ E. (S. by E. $\frac{1}{2}$ E.). The building is square, tapering upwards, and the light is visible from all around. (Page 199.)

GULF OF NAUPLIA, or ARGOS. The following extract is from the remarks of Captain the Hon. R. S. Dundas, of H. M. S. *Belvidera*, in the Mediterranean.—“Several sunken rocks are now known to exist in different places, which are not noticed in any of the charts. One of these, with only 12 feet water on it, and 25 fathoms close to it, was discovered, a few days before our arrival at *Nauplia*, by the boats of H. M. S. *Madagascar*, then lying in the little harbour of *Drepano*. The situation of it is between the three islands, called *Tolon*, *Platea*, and *Hypsile*, or *Devil's Island*; and it lies in a S. E. by E. $\frac{1}{2}$ E. (S. E.) direction from *Tolon Island*. It does not appear to be much in the way of ships sailing up the *Gulf of Nauplia*; but with a beating wind, a ship standing close in near these islands, might strike upon it.

“In this case it should be remembered that the bluff land lying N. W. of *Tolon Island*, kept open of the S. W. point of that island, will lead clear outside of it; and that the low point of the main-land inside, and opposite *Spetzia*, kept open one degree to the S. W. of the western angle of *Devil's Island*, will lead directly upon it. Therefore the same low point kept well open to the S. W. of the *Devil's Island*, will lead clear of it.

“These marks would be sufficient to guide a stranger in sailing up the *Gulf of Nauplia*, but not in entering between the islands. This is the only known danger any where in the gulf.”

Between *Spetzia* and *Hydra* are several rocks and rocky islets: the principal of these are the *Stratonisi*, the largest of which is the easternmost. About a mile and a half to the eastward of this larger islet is a sunken rock, which must be carefully avoided; and the native coasters say that, at S. W. $\frac{3}{4}$ W. (W. S. W.), two miles from the same, there is a rock on which a Turkish line-of-battle ship grounded; therefore mariners should be most cautious in navigating the vicinity of these islands without a pilot. The little island *Trikeri* lies W. $\frac{1}{2}$ S. (W. $\frac{3}{4}$ N.) from *Stratonisi*, nearly half-way between *Hydra* and *Spetzia*; and nearly half-way between *Trikeri* and the latter is the *Cambrian Shoal*, lying almost directly in the way of vessels navigating between *Hydra* and *Spetzia*. The least water found upon it was 22 feet, 4 inches, with deep water all round; and the shoal is composed of large square stones. It lies with the following

bearing S. *Ope Oure*, N. W. end, N. by N. W. $\frac{1}{2}$ W.; Windmill of Hydra, a boat's length open; a large sugar-loaf island, on the N. W. end, of Hydra, E. N. E. $\frac{1}{2}$ N. (*E. by N.*) at small distance, with a church on it, on with the sudden fall to the southward of Spetzia Poulou, S. W. $\frac{1}{2}$ S. (*S. W. $\frac{1}{2}$ W.*); the south peak of Triton Island E. $\frac{1}{2}$ N. (*E. by S.*); the S. E., or bluff end of Thoko, N. E. $\frac{1}{2}$ E. (*N. E. by E. $\frac{1}{2}$ E.*); and the summit of Salos, into S. S. E. (*S. E. $\frac{1}{2}$ S.*). (Page 912.) ZAGORIUM

The mole at the harbor of Canoa has lately been repaired and extended; it is now 1,900 feet in length, with a lighthouse at the extremity, which exhibits a light at 85 feet above the level of the sea, and visible about 12 miles. The harbour is now capable of accommodating a great number of vessels, of from 200 to 300 tons, in 4 to 5 fathoms, good ground. (Page 228.)

The port of *Retzuma*, which was formerly nearly choked up with sand, has been partially cleared out, and attempts are yet being made to render it deeper. Similar operations are taking place at *Candia*, so as to make the harbor more commodious. (Page 229.)

CAPT SIDERO. Between the *Yanis Islands* and *Candia* there is a dangerous reef of rocks; they appear to lie about a mile from the main-land, and to be much in the way of shipping using this passage. But in the bearings given by the *Master* who reported them there is evidently some mistake; so that we can only advise the *Master* to be cautious in navigating this channel until they become better known. (Page 93d.)

ON THE ISLAND OF GUDRON, a harbor light is now exhibited. (Page 233.)

of Captain the Hon. R. S. Mendenhall, U. S. Navy, is as follows: "The following extract is from the remarks of several American whaling ships, which are not recorded in any of the charts. One of these whaling ships, the *Albatross*, in 1852, was on the coast of the Gulf of Nankai, and it was discovered that a few days before our arrival at Nankai, by the boats of H. M. S. *Albatross*, their ship in the harbor of Dairen. The situation of it is between the two islands called *Yakou*, *Yakou*, and *Yakou*. The *Albatross* was in the harbor of Dairen, and it was in the direction from *Yakou* Island, and it was in the direction from *Yakou* Island. It does not appear to be much in the way of being struck by a sailing ship, but with a bearing wind, it might strike upon it."

" In this case it should be observed that the low point of the S.W. corner of the island will lead clear outside of it; beyond kept open of the S.W. point of the island will lead clear outside of it; and that the low point of the western end of the island will lead directly upon it.

The above the same low point kept open of the S.W. of the Devil's Island, will

"These marks would be sufficient to make a stevedore in sailing up the Gulf of Mexico, but not in entering between the islands. This is the only known danger zone in the Gulf."

Between Spectra and Wajwa are several rocks and rocky islets: the principal of these are the *Stromboli*, the largest of which is the easternmost. About a mile and a half to the eastward of this larger islet is a smaller rock which must be carefully avoided; and the native coasters say that at $S. 70^{\circ} W. 2 \frac{1}{2} M.$ two miles from the same, there is a rock on which a Turkish line-of-battle ship grounded; therefore mariners should be most cautious in navigating the vicinity of these islands without a pilot. The little island *Wajwa* lies $W. 2 \frac{1}{2} M. 3^{\circ} N.$ from *Stromboli*, nearly half way between *Wajwa* and *Spectra*; and nearly halfway between *Spectra* and the latter is the famous *Stromboli*, being almost directly in the way of vessels navigating between *Wajwa* and *Spectra*. The former is not bound upon a reef flat, a lagoon, with deep water all round it, but is surrounded by a narrow and shallow lagoon with the following

ERRATA.

Which the Reader is requested to correct before the perusal of the Work.

- Page 123, line 12 from bottom, for "larboard," read *starboard*.
126, line 3 from top, for "sail into," read *anchor off*.
157, line 13 from top, for "43°," read 42°.
160, lines 13 and 14 from bottom, the pen to be run through "Should you sail to Venice without a pilot, you will be made to pay for one, and also incur a forfeiture for omitting to take him in;"—this regulation being no longer in force.
186, lines 1, 2 and 3 at top—there being no lighthouse on *Cape Bianco*, the pen to be run through the misstatement there given.
189, line 29 from bottom, for "S. W.," read *S. E.*
195, line 31 from top, for "S. Western," read *N. Western*.
" line 7 from bottom, for "Southern," read *Northern*.
196, line 17 from top, for "starboard," read *larboard*.
220, line 19 from bottom, for "S. W. $\frac{1}{4}$ S. (*S. W. $\frac{1}{4}$ W.*)," read *S. E. $\frac{1}{4}$ E. (*S. E. $\frac{1}{4}$ S.*)*.
223, line 16 from top, for "West (*W. N. W. $\frac{1}{4}$ W.*)," read *East (*E. S. E. $\frac{1}{4}$ E.*)*.
249, line 6 from bottom, for "you will be under the lee of the harbour," read *the harbour may be easily run for*.
268, line 28 from bottom, for West (*W. by N.*), read *E. N. E. (*E. by N.*)*

New Piloting Directions

FOR THE

MEDITERRANEAN SEA, &c.

* * Throughout this Work the Longitude is computed from Greenwich ; the Courses and Bearings are according to the true Meridian ; and those which follow, in a parenthesis, thus (E. N. E.), are the magnetic ; but the direction of the winds, tides, and currents are always to be understood as the true.

SECTION I.

1. FROM CAPE TRAFALGAR TO GIBRALTAR.

Variation, Two Points West.

CAPE TRAFALGAR, situated in latitude $36^{\circ} 10' 15''$ N., and in longitude $6^{\circ} 1' 30''$ W. from Greenwich, may be considered the north-western point of the entrance to the *Strait of Gibraltar*, *Cape Spartel* forming the southern boundary. *Cape Trafalgar* is about 25 miles distant from the *Lighthouse of Cadiz*, and is of moderate elevation : it may readily be distinguished by its singular appearance, being flat, and terminating with two sharp angles ; on the eastern one stands a round tower. To the eastward of the flat land it becomes high and mountainous : here you will observe several high sandy cliffs, while to the northward of the *Cape* it is level and sandy, having only a few low rocky points projecting out to seaward.

ALTOS, OR HEIGHTS OF MECA. To the north-eastward of *Cape Trafalgar* the land rises high in the interior, and forms the *Heights of Meca*, the summits of which appear level, and are divided into two parts, being spotted with green clumps, and patches of whitish sand.

The *Tower of Meca* lies $3\frac{1}{2}$ miles E. $\frac{1}{2}$ S. (S. E. by E. $\frac{1}{2}$ E.) from *Cape Trafalgar* ; and between them is a patch of sand called the *Boquerom*, used as a mark for the shoals in the offing. It is not advisable for vessels to come too near the *Cape*, on account of the many rocky shoals that environ it.

THE ACEYTERA is a dangerous reef of rocks, extending N. N. W. and S. S. E. (N. and S.) about one mile, being nearly 2 cables' length in breadth. The least water over it is 9 feet ; but in the interstices between the rocks there are 5 fathoms. Its N. W. end lies W. $\frac{1}{2}$ S. (W. N. W. $\frac{1}{2}$ W.), distant 2 miles from *Cape Trafalgar*, and its S. E. end lies S. W. (W. S. W.), at about a similar distance. When you are upon the northern end of this shoal, *Trafalgar Tower* will be in one with the *Boquerom* ; and when upon the shoalest part of this danger, the same tower will be in a line with the highest part of the high land of *Meca*. Between the Shoal and the *Cape* is a channel, with a depth of 6 and 7 fathoms. Here the water appears to boil, and break, but this is merely the effect of the counter currents, and there really is no danger ; yet during a heavy swell of the sea, and the wind unsteady, it would be highly imprudent to venture through it.

There is another Bank off *Trafalgar*, extending $1\frac{1}{2}$ mile N. W. and S. E., (N. N. W. and S. S. E.), distant between 3 and 4 miles from the *Cape*, the least water upon which is 3 fathoms, while round it are 8 and 10 fathoms : its northern part lies W. by N. (N. W. by W.), 3 miles and three-quarters from the *Cape*, and has the *Tower of Trafalgar* in one with the *Tower of Meca*. The S. W. end of this Bank bears W. by S. (W. by N.), distant $2\frac{1}{4}$ miles from the *Cape*, and South (S. S. W.) from the *Tower of Conil*. Here the *Trafalgar Tower* is in a line with the *Boquerom*.

E. by N. (E. by S.) from *Meca Point* and *Tower* is the *Barcadero*, or landing

place of Meca: this is a low beach, with a little creek affording a run of fresh water. Here are the *Cove* and *River of Barbate*, before which the anchorage is good, but the river is narrow and shallow; some rocks also lie off the *Cove*. To the S. eastward, and about $4\frac{1}{2}$ miles from *Meca Tower*, is the *Point* and *Tower of Sara*; this is of moderate height, near the sea, but forms a mountain inland, with two towers on its summit. From hence a *sandy Cove* extends to the south-eastward $3\frac{1}{2}$ miles to *Cape Camarinal*, which *Cape* is low, but has a *watch-tower* upon it, and some rocks scattered about its point.

Cape de Plata is a good mile beyond *Cape Camarinal*, and formed by the foot of a mountain, that descends gradually towards the sea, making a point, which has several rocky islets about it. There is also a *watch-tower* upon it. Between *Camarinal* and *Cape Plata* is a flat sandy beach, where vessels may find shelter from east and N. easterly winds; large vessels frequently ride here in 7, 8, or 10 fathoms water, and small ones in a less depth, having a cable carried on shore. Small vessels also ride in the cove between *Camarinal* and the *Tower of Sara*, during fair weather; but you must be observant of the changing of the wind: for should it blow from the S. W., you will have scarce room to weigh and get under sail. The interior of the land, from *Meca Point* to *Cape Plata*, is mountainous, and of considerable elevation.

PALOMA. E. S. E. $\frac{1}{2}$ E. (S. E. $\frac{1}{4}$ E.), distant $4\frac{1}{2}$ miles from *Cape Plata*, is *Paloma Point* and *Tower*, with several rocks before it; between these *Points* is the *Cove* of *Bolonia*, with good anchorage half a cannon-shot from the shore. Three miles and three-quarters from *Paloma Point* is the *Tower* and *Point of La Pena*; between these *Points* is the *Cove* of *Valdebaqueros*, giving shelter to small vessels. Near the east part of *Paloma Point* is the *River Puerco*, falling into a small creek between two ledges of rocks, fit only for small craft. A range of hills extends from *Paloma* to *Pena Point*, appearing with several patches of white sand.

TARIFA. Nearly 4 miles from *La Pena* is the *Chapel of St. Catalina*, near which stands the *Town of Tarifa*; and about two-thirds of a mile from it, is the small *Island of Tarifa*: this is low and level, having a *tower* and *lighthouse* upon it, in latitude $36^{\circ} 0' 50''$ N., longitude $5^{\circ} 36' 15''$ W. Between the *Island* and *St. Catalina* are 8 feet, but the channel is too narrow for any large vessel. The *Island* is all round free from danger, except the *Rock Marroquina*, which lies half a musket's shot S. westward from the *Tower*; but there are some shallows to the N. westward.

THE CABEZOS. About $2\frac{1}{2}$ miles S. S. E. (South) of *Point Paloma*, 5 miles W. by N. (N. W. by W.) from the *Island Tarifa*, and nearly S. W. (W. S. W.) from the *Tower of Pena*, distant 3 miles, lies the *Cabezos Rocky Shoal*. It is said in low tides the *Cabezos* will not have more than 2 feet water over them, while a very little way off there will be $2\frac{1}{2}$ and 3 fathoms, and further out 7 and 11 fathoms: many vessels have been wrecked here, and therefore the greatest care must always be taken to give them a fair berth. The situation of these shoals may be known by the *Peak* on the *Sierra de Enmedia* coming in a line with the two small eminences on the *Sierra de la Luz*, bearing N. E. (E. N. E.). To avoid them, bring the low sand-hills to the eastward of *Meca* by *Cape Plata*, taking care, in standing to the northward, that they become not covered by the *Cape* until the *Chapel of Luz* is open of the east end of the *Sierra de Enmedia*: keep thus at a proper distance from the shore, and avoid the *Rock of Pena*, or *La Piedra de Valdebaqueros*, which at high water has but $2\frac{1}{2}$ fathoms over it. This is a single rock, and lies S. W. (W. S. W.) from the *Tower of Pena*, distant $1\frac{1}{2}$ mile, and N. W. by W. (N. W. by N.) from the *Island of Tarifa*, distant 4 miles. The channel between it and *Point Pena* is above a mile broad, and in it are 4 and 5 fathoms water: to sail through it, you must bring *Point Paloma* in one with *Cape Plata*.

Arroyo del Puerco, or *West Bank*. W. by N. (N. W. by W.) from the *Cabezos* is a rocky shoal, called *Arroyo del Puerco*; it is about a mile long, but narrow, and with not less than 3 fathoms over it. Between it and the land are 10, 14, and 18 fathoms; and between it and the eastern *Cabezo*, from 8 to 10 fathoms. Westerly winds frequently form a whirlpool between this shoal and the shore.

New Bank. S. W. (W. S. W.) of the *Cabezos*, distant three-quarters of a mile, is a new bank of 7 and 8 fathoms, running W. $\frac{1}{2}$ N. and E. $\frac{1}{2}$ S. (W. N. W. $\frac{1}{2}$ N., and E. S. E. $\frac{1}{2}$ S.) inside, and between this and the *Cabezos* are 10, 11, and 7 fathoms; and on the outside, to seaward, it runs rapidly into deep water.

Thisbe's Rock. There is also said to be a bed of rocks, discovered by H. M. S. *Thisbe*, lying (S. by W. $\frac{1}{2}$ W.), distant $5\frac{1}{2}$ miles from *Point Paloma Tower*—(W. N. W. $\frac{1}{2}$ W.), distant $5\frac{1}{2}$ miles from the *Island of Tarifa*—and about $1\frac{1}{2}$ mile to the south-westward of the *Cabezos*, having only 14 feet water over it: great care

should be taken, when passing, to avoid this danger. *Tarifa Lighthouse* (*E. by S. or E. $\frac{1}{2}$ S.*) will lead outside of it. The above are compass bearings, and will certainly clear all the *Cabexas* dangers; but the existence and position of the *Thiabe's Rock* are much doubted.

When you are certain you are to the eastward of the *Thiabe's Rock*, and bound to *Gibraltar*, it will be advisable to haul toward the land, particularly if the wind should be to the northward of west, lest the mid-current should carry you past it. On both sides of the *Strait* the water flows to the westward, and ebbs eastward; but in the *Bays* the currents depend upon the tides, which are very variable.

On a point of the main, to the northward of *Tarifa*, stands the *Chapel of Santa Catalina*, already mentioned; it is situated upon a little hill, and appears at a distance like an island.

Nearly East (*E. S. E.*) of *St. Catalina* is *Camorro Point*, high, broad, and steep, with many *rocks* about it: in the *cove*, between the *Island* and *Town of Tarifa*, small vessels may lie, defended from the winds from the S. W. round by N. W. to N. E.: with other winds they generally run aground in a small creek east of the town; but large ships ride to the eastward of the *Island*, opposite the *sea-gate* of the town, in from 15 to 18 fathoms. The coast now runs on towards the high *Points of Canales and Guadalmes*, on each of which there is a *watch-tower*; on the eastern side of the latter is a small *cove*, with a deep valley covered with orchards, and a small rivulet. Two miles and three-quarters further on, is the *East Point of Acebuche*. The land between these *Points* bends in to the northward, and within it stands the *Castle of Tolmo*; here the anchorage is good for small vessels, and sheltered from east winds round by North to N. W., having from 6 to 8 fathoms: the ground holds well, but the shores are rocky. One mile beyond *Point Acebuche* is *Point del Frayle*, distinguished by a *watch-tower* also, standing on the slope of a hill: a small *Island* lies off its *Point*, which in appearance is said to resemble a *Friar*, and has several *rocks* about it. On the east side of the *Point* is a small sandy *cove*, fit only for small craft, sheltered from the west to the north, and having a *Castle* for the defence of the anchorage.

N. E. $\frac{1}{2}$ N. (*E. N. E. $\frac{1}{2}$ N.*), about 2 miles from *Point del Frayle*, is *Point Carnero*, or *Cabrera*, between which lies *Palomas*, or *Pigeon Island*; one-third of a mile from the said *Point* is *Point Secreta*, with a small creek between, fit for small craft only. *Palomas Island* is distant about three-quarters of a mile from the *watch-tower* on *Point Carnero*, being low and ragged: off its N. W. part are the two *Cabrera Islands*; and $1\frac{1}{2}$ cable's length further west, is a cluster of small *rocks*, some above, and others under water.

THE PEARL ROCK lies full half a mile to the southward of the *Island Palomas*, having 6, 7, 8, and 9 fathoms water between them: this *Passage* may be used with a leading wind, taking care to pass by *Palomas Island*, at the distance of $1\frac{1}{2}$ cable's length. On the *Pearl* in one part are only 9 feet water, the mark for it being the west end of *Palomas Island* in one with the third rising from *Point Carnero*, and a peaked rock off the same *Point* in one with a hill which makes like a sugar-loaf, to the eastward of *St. Roque*: this hill has a kind of saddle on its summit. In coming from the westward, you will have passed the *Pearl* whenever you can discover the *Town of St. Roque* (which stands on a hill, and cannot be mistaken) over the *rocks* that run out from *Point Carnero*, or when that *Point* bears about N. by W. (*N. by E.*), taking care not to bring *Europa Point* to the eastward of N. E. (*E. N. E.*): then you may run in for the *Bays of Algeciras and Gibraltar*, giving the *harbour* land a good berth; and if bound for *Gibraltar*, steer in until you have opened the *Devil's Tower*: stand on for that, into any convenient depth, from 20 to 6 or 5 fathoms, and anchor, mooring S. E. and N. W.; but in war-time vessels generally anchor off the *New Mole*.

ALGECIRAS AND GIBRALTAR. *Carnero*, or *Cabrera Point*, may be called the *Western Point* or *Boundary* of these extensive *Bays*. N. $\frac{1}{2}$ W. (*N. N. E. $\frac{1}{2}$ N.*) from this *Point* stand the *Tower* and broad *Point of San Garcia*, distant $1\frac{1}{2}$ mile. Between these *Points* the shore bends inward, forming the *Bay* or *Cove of Getares*, which is large and deep; but the heavy swell that always accompanies winds from the N. E. to the S. eastward, renders the anchorage not good: some rivulets are situated at the bottom of this *Bay*, and have a considerable quantity of water in winter-time. Both the *Points of Cabrera* and *San Garcia* are encompassed with *rocks*; but they are mostly visible, and therefore can easily be avoided. *Point Rodea*, or *Ridea*, is half a mile to the northward of *San Garcia*; the opening between forms a kind of

Cove, but its entrance is encumbered with rocks. N. N. W. (North) from *San Garcia*, distant 1 mile, is the *Island of Algeciras*, also called *Verde*, or *Green Island*, which is moderately high, and fortified: it is nearly surrounded by rocks, which render the approach to it, and the passage between it and the main, exceedingly dangerous, and fit only for small craft.

Algeciras is agreeably situated, and was formerly a place of considerable note, consisting of two towns, and being supplied with water from a fine aqueduct of hewn stone, a quarter of a league in length; but latterly it has gone into decay.

About half a mile N. N. W. $\frac{1}{2}$ W. (N. $\frac{1}{2}$ W.) from *Green Island* is the *Mole*, running out easterly; to the southward of which is the *River Miel*, into which small vessels can go at high water. Half a cable's length east from the *Mole* lies the *Galera Rock*, having two parts of it uncovered, just above the level of the sea: from it runs out a reef to the N. eastward. A quarter of a mile N. $\frac{1}{2}$ E. (N. N. E. $\frac{1}{2}$ E.) from the *Galera* is a shoal, with only 2 fathoms water over it; and from the middle of *Algeciras Town* a reef runs easterly; and from the north part of the *Town*, where the *Fort of St. Antonio* stands, another reef of larger rocks extends. Continuing along the coast three-quarters of a mile, you will see the *Tower of Almirante*, moderately high, and surrounded with rocks; three-quarters of a mile from which is *La Polvora Tower*: when these two towers come in a line, you should not anchor, for the ground is foul. The *Point of Rocabillo*, or *Reconillo*, is half a mile further, and also encircled with rocks; from hence begins a low sandy beach, which extends round the Bay so far as *Gibraltar*, the *Point of Mirador Fort* and *Punta Mala* excepted. Above a mile to the northward of *Rocabillo Point* is the *River Palmones*, where the vessels belonging to *Algeciras* rendezvous in winter; it is deep and large, but its entrance is encumbered by sandbanks, particularly to the southward, which run out a great way. A quarter of a mile east from *Palmones River* is the *Tower of Entre Rios*, from which, at nearly the same distance, is the entrance to the *Guadarranque River*, which is of little note. Beyond this, about three-quarters of a mile, is *Fort Mirador*, built circularly, and standing upon a little eminence. E. $\frac{1}{4}$ S. (E. S. E. $\frac{1}{4}$ S.) from the *Fort* is *Point de Gallo*; and from *Point de Gallo* the shore forms a kind of bight toward *Point Mala*: between them, a little way up the *River Mayorga*, is a bridge. *Point Mala* is a little elevated, and has a few rocks round its *Point*, rendering it necessary to give it a berth in passing: a *Castle* is built upon its summit. Northward from this *Castle*, one-third of a mile, is the *Hospital de la Sangre*; and S. E. by E. (S. E. by S.) from it, distant one mile and a quarter, is *Fort St. Philip*, being the western extremity of the Spanish lines; these stretch across, and terminate at *Fort St. Barbara*, on the other side of the Peninsula, the land being low and flat all the way to the *Rock of Gibraltar*, where it suddenly rises to a great height, its top being uneven, with several eminences thereon, and extending southerly until it slopes down to *Europa Point*, the eastern extremity of the Bay, and well-known boundary of the *Strait of Gibraltar*. *Europa Point* is in latitude $36^{\circ} 6' 20''$ N., longitude $5^{\circ} 20' 53''$ W.

THE ROCK OF GIBRALTAR is the *Mons Calpe* of the Ancients, and one of the Pillars of Hercules; it consists of a great rocky mountain, about 3 miles in length, and from half to three-quarters of a mile in breadth. On its northern side is an isthmus, about one mile and a half long, and three-quarters of a mile broad, which connects it with the Spanish Continent. The northern form of this rock is almost perpendicular; its eastern side is full of frightful and abrupt precipices; the southern side is narrow, and almost inaccessible, presenting hardly any possibility of approach from seaward; but the western side, although nearly as precipitous, rugged, and perpendicular as the others, yet slopes its base down towards the sea, and presents a kind of pied a terre in the small level spot upon which the town is erected; and this is amply secured from every sort of attack by extensive and most powerful batteries, so that it appears to be impregnable. One large street traverses almost through the whole town, which is nearly half a mile in length, and filled with shops. The *Old Mole* runs out from the north end of the town, about N. W. by W. (N. W. by N.) 1100 feet into the sea: the *New Mole* is a mile and a half to the southward of the *Old Mole*, and extends outwards 700 feet; it has an elbow formed by the shore, and affords shelter for large vessels in winter, the furthest out lying in 6 and 5 fathoms water. It has a Church, a Catholic Chapel, and three synagogues: there are also a Navy hospital, a victualling-office, and barracks; a handsome theatre, a garrison library, and other public buildings. The commerce of this place embraces a great variety of articles, not the exclusive produce of the

place itself; but its situation fits it for a *general entrepôt*: thus cottons, woollens, and most other of the manufactures of England—sugars and rums from the West Indies—tobacco, rice, and flour from America, are imported from the West; while wines, silks, wax, and numerous other Mediterranean articles are brought in from the East, and contribute to render the possession of this place by the British as valuable, as a commercial concern, in peace, as it is a military *dépôt* in times of war.

The body of the rock consists of a kind of primary marble, running in strata of 30, 40, and 50 feet in thickness; and vast sums have been latterly expended in excavating numerous caverns and galleries, forming safe and sheltered communications from one part of the garrison to another, without being exposed to the fire of an enemy in cases of attack; while trees, shrubs, and flowers of various kinds have been planted in divers situations, both for ornament and utility. The earth has been artificially supported with walls, and roads have been cut in the solid rock, and rendered passable for carriages. On the summit of the mountain there are several barracks, towers, and fortresses; but many parts, being uncultivated, afford refuge to the wild animals, as rabbits, apes, snakes, &c. The garrison consists of about 5000 soldiers, and the regular inhabitants are calculated to amount to a similar number.

Anchorage in the Bays of Algeciras and Gibraltar. In case of necessity, vessels may lie at single anchor about half a mile from *Cabrita Point*, in from 18 to 27 fathoms, sand and small gravel, or from thence as far out as 38 fathoms, the ground holding well; and thence as far on as *St. Garcia*, but the bottom is not so good. At the distance of half a mile to the eastward or northward of *Green Island* it continues bad, as far as the depth of 15 fathoms; but from thence into deeper water, as far as $1\frac{1}{2}$ mile, or into 38 fathoms, the ground holds well, and is suited to large vessels, especially in summer-time; but further out the water is too deep.

The best anchorage for all ships is from off the middle of *Algeciras Town* towards *Palmones River*, and over towards the *Bridge of Mayorga*. In all this space, except the spot we have before mentioned, where the two *Towers*, *Almirante* and *Polvora*, come in one, the ground is good, being either sand or mud out as far as 23 fathoms; but the positions to be preferred, are between the *Point of Rocadillo* and the *River Palmones*, or between that *River* and the *Bridge of Mayorga*; in this little space you will have 23 fathoms half a mile from the shore, the water deepening further out: it will therefore be advisable to sound before you anchor.

Vessels may also ride all the way from the *Bridge of Mayorga* towards *St. Philip's Castle*, only keeping off *Point Mala*; but between the *Castle* and the *Old Mole*, the anchorage is preferable, being less deep: this is generally the English anchorage, under the guns; the smaller vessels lying near the *Mole*, the larger further out. In the space also between the *Old* and *New Mole* there is good anchorage in any depth you please, keeping about half a mile off; not going too near on account of the rocks, nor further off, lest you get into too deep water: this may also be done all the way, and even to the southward of *Europa Point*, but the water becomes deeper. A *pinnacle rock* is stated to lie about 300 yards to the north-eastward of the *Point*; it is of small dimensions, but there is water enough for a man-of-war to pass between it and the shore: and, in moderate weather, a vessel may anchor off the *Point* in 10 fathoms water, on a bottom of clean sand, at a considerable distance from the land.

TIDES. The tides in *Gibraltar Bay* commonly rise 5 and 6 feet: it is high water, full and change, at one o'clock.

2. FROM CAPE SPARTEL TO CEUTA AND TETUAN.

CAPE SPARTEL is the N. western point of *Africa*, and the kingdom of *Marocco*; being in latitude $35^{\circ} 48' 15''$, and longitude $5^{\circ} 54' 25''$ W. It is the south-westernmost point of the *Strait of Gibraltar*, and bears S. by E. (*S. by W.*) from the tower on *Cape Trafalgar*, distant $22\frac{1}{2}$ miles. *Cape Spartel* appears, at a distance, like an island, and in clear weather will be discerned 14 or 15 leagues off. Its outer point, when seen from a short distance to the westward, seems irregular, with risings upon it like hummocks, and the lands resemble the awnings of a galley. It is quite clean, except some high rocks which lie near it; these are steep-to, and may be approached without danger. On its summit is an old watch-tower.

From *Cape Spartel* to *Tangier Bay* western point, the distance is $5\frac{1}{2}$ miles: the coast is high and clear. About midway is the rocky islet of *Fraylequito*, lying close in to

the shore; but there is a reef off the *Point of Tangier*, extending out to the distance of 2 cables' length, the bottom, round the point, being gravel and small stones.

TANGIER BAY. E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ S.*), distant 3 miles from *Cape Tangier*, is *Cape Malabata*, or *Malabat*, broad and projecting, having a battery and a tower on it. Off *Cape Malabat* lies a *ridge of rocks* above a cable's length, uncovered at low water; further out is another, called *Almerante*, having $3\frac{1}{2}$ fathoms over it, and said to be a mile off; on this H. M. S. *Excellent* struck, the Cape bearing S. E. $\frac{1}{2}$ S. (*S. by E. $\frac{1}{2}$ E.*), distant by estimation full $\frac{1}{4}$ of a mile; while she remained on the rock, there were 6 fathoms on one side, and $5\frac{1}{2}$ on the other. She got off in less than a minute.

The *Town of Tangier* is of very ancient origin; and when conquered by the Romans, under *Sertorius*, was called *Tingris*, or *Tinja*. The convenience of its situation, at the entrance to the Mediterranean, has caused it to become the frequent object of contention: thus it has been successively in the possession of the Saracens, the Moors, the Portuguese, and the English. In 1662 it became the marriage portion with the Princess Catherine of Portugal, to King Charles the Second: the English, however, abandoned it in 1684, after having destroyed the fortifications; and it now is a place of little importance, although inhabited by a population of 6 or 7000. Its principal commerce is with the garrison of *Gibraltar*, which it supplies with cattle, vegetables, poultry, eggs, fruit, and other articles. Permission for this purpose was originally given by *Muley Ismael*, the great-grandfather of the present Emperor of Morocco, and continued to the present time.

The *Bay of Tangier* is situated between *Cape Tangier* and *Cape Malabat*, and is about $1\frac{1}{2}$ mile deep, affording convenient anchorage, in from 7 to 10 fathoms sand, opposite to the town. In the S. E. part of the Bay, nearly in the fair-way between *Cape Malabat* and *Old Tangier*, is a ledge of rocks, four in number, under water, lying N. and S. (*N. N. E. and S. S. W.*) about 100 fathoms in length; at low water, spring-tides, even in a calm, a rippling may be seen over them: the marks for them are, the east part of the old bridge in the bottom of the Bay, in one with the westernmost of two bushy trees, bearing nearly S. W. by S. (*S. W. by W.*); the north battery wall of *Tangier*, end on, and an old tower on the beach in the S. E. part of the Bay, in one with a peaked piece of a ruinous wall of *Old Tangier* on the top of the hill that the remains of the town is on; this latter mark will run you on the centre of them. The easternmost rock has 6 feet on it, the next 18 feet, the third has 10 feet, and the westernmost 12 feet: between the latter two are 6, 4, and $3\frac{1}{2}$ fathoms. There are 5 fathoms close to them, and at a short distance off 8 fathoms, in which depth you will be clear of danger: you will avoid them by keeping *Gibraltar Rock* in sight clear of *Cape Malabat*. The marks for anchoring are *Cape Malabat* N. E. $\frac{1}{4}$ N. (*N. E. by E. $\frac{1}{2}$ E.*) *Old Tangier* S. E. by E. (*S. E. by S.*); the old *Bridge* S. S. E. $\frac{1}{4}$ S. (*S. $\frac{1}{4}$ W.*); and the northern *Point of Tangier Castle* W. $\frac{1}{4}$ N. (*N. W. by W. $\frac{1}{2}$ W.*) with a white patch on the high land within *Cape Spartel*: with these marks on, you will be in the only clean part of the Bay, and have 9 and 10 fathoms, fine sandy ground; the other parts being interspersed with broken coral, rocks, &c. very destructive to the cables. There is a mole running from *Tangier* eastward, where small vessels may ride, before the town, in 2, 3, or 4 fathoms, protected from northerly winds; there is a wall about the town, and some fortifications; and on the southern side of the Bay a high and pleasant looking hill. A Levant wind causes a heavy swell to tumble into the Bay, and makes a ship roll deep. It is high water at two o'clock; the flood-tide sets to the eastward, and ebb to the westward, but 2 or 3 miles off shore, to the contrary. The tides rise 5 feet, full and change.

Tangier to Ceuta. All the coast from *Tangier* to *Ceuta* is rugged, and encumbered with rocks and projecting cliffs: the interior of the country is mountainous; and directly South (*S. S. W.*) of the Bay of *Gibraltar*, is that remarkable and lofty mountain, called *Sierra Bullones*, or *Ape's Hill*. E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ S.*) $9\frac{1}{2}$ miles from *Cape Malabat*, lies the *Point of Alcazar*, high and steep, with a reef of rocks about it; between are 2 or 3 Coves, where vessels may anchor in light winds close to the land, in from 18 to 9 fathoms. E. $\frac{1}{4}$ N. (*E. S. E. $\frac{1}{4}$ E.*), 24 miles from *Point Alcazar*, is that of *Sainar*, low and projecting, having a bay or cove on each side of it. N. E. $\frac{1}{2}$ N. (*E. N. E. $\frac{1}{2}$ N.*), $3\frac{1}{2}$ miles from the same point, is *Cires Point*. The *Point of Cires* is low, but gradually rises up to a sharp-cornered mountain, very remarkable, called *El Cuchilla*, or the *Gap of Cires*. Nearly 1 mile E. $\frac{1}{4}$ N. (*E. S. E. $\frac{1}{4}$ E.*) from *Point Cires* is the *Point of Lanchones*, having between them a bay three-quarters of a mile in depth, with a flat beach, and anchorage in 15 fathoms. Half a mile from *Point Lanchones* is that of *Cruzes*, the shore between being steep over the water, with some rocks near to the former point.

Cruzes Point is high and steep-to, with several rocks at its base; but *Lanchones Point* is not so high, and much more even. Rather less than a mile from *Cruzes Point*, in a E. by S. (*S. E. by E.*) direction, is the *Fronton de Almanza*, which is a broad, high, and abrupt precipice. Between *Cruzes* and *Almanza* the land bends inward, and forms a *Cove*, with a small sandy beach. Two miles E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ S.*) from *Point Almanza* is *Leona Point*; between them is the *Island Peregil*, a high barren rock, having 18 fathoms water close to its outer side. *Point Leona*, the northernmost point of this part of *Africa*, is steep-to, of a moderate height, and distinguished by a large tower in ruins; between *Point Leona* and *Peregil*, or *Parsley Islet*, there is good anchorage in 8 fathoms water. Some small *islets* lie off its western point.

One mile and three-quarters E. by S. (*S. E. by E.*) from *Point Leona* is *Point Torre Blanca*, or *White Tower Point*, which is high, abrupt, and of a dark colour, inclining to a reddish brown, with the ruins of a tower upon it, and some *islets* at its base. About a quarter of a mile to the eastward of *Torre Blanca* is a *shoal*, described by *Tofino*, thus: "This *shoal* is about the size of the hull of a man-of-war, with from 3 to 4 fathoms water over it, excepting where the rock is highest, and the depth only 1 fathom, occupying a space equal in size to a large long-boat. Between this rock and the shore there are from 8 to 9 fathoms, rocky bottom, the channel being only about a cable's length broad, and rendered narrow by some *islets*, projecting two-thirds of a cable's length from the land: on the outside of this *shoal* are 8 and 9 fathoms, also rocky ground. From the *shoal* the outermost *islet* of *Torre Blanca* appears in a line with *Point Leona*; the ruins of the tower with the upper point of *Ape's Hill*, W. S. W. (*S. W.*), and *Point Bermeja* on with the N. E. corner of the walls of *Old Ceuta*." Between *Point Leona* and *Point Blanca* is the *Cove* or *Bay of Benzus*, where vessels may anchor in 18 fathoms, sandy ground, and at the distance of 2 cables' length from the shore, protected from S. easterly and S. westerly winds. From this anchorage the *islets* of *Torre Blanca* will bear N. E. $\frac{1}{2}$ E. (*E. N. E. $\frac{1}{2}$ E.*) a remarkable pyramidal peaked *Hill S. $\frac{1}{2}$ E.* (*S. by W. $\frac{1}{2}$ W.*), and *Point Leona* will be in one with *Tarifa*, bearing N. W. by W. (*N. W. by N.*)

About a mile S. E. $\frac{1}{2}$ E. (*S. S. E. $\frac{1}{2}$ E.*) of *Torre Blanca Point* is *Point Bermeja*, or *Red Point*; this also is high, and has a tower upon it, in ruins. The coast between them is all bordered with rocks, some above and some under water; but on the outside of these the water is very deep. Near three-quarters of a mile to the south-eastward of *Bermeja Point* is *Point Benites*, with the two little flat *islets* of *El Campo* before it.

CEUTA. This is a fortified seaport, immediately opposite to the *Rock of Gibraltar*; it is built upon the site of the ancient *Abylo*, one of the *Pillars of Hercules*, and supposed to be of *Carthaginian* origin, formerly colonized by the *Romans*. In 1409 it was taken from the *Moors* by *John, King of Portugal*; and after the death of *Sebastian*, fell to the *Crown of Spain*, to which it was finally ceded by the treaty of 1688, and is now the only one of the numerous conquests in *Marocco* which *Spain* still retains. Like *Gibraltar*, its natural position, and the strength of its fortifications, render it almost impregnable.

The *Peninsula* is generally called the *Almina*, and contains both the suburbs and fortress of *Ceuta*; the old town being merely a space of ground exhibiting remains of old walls, towers, and ancient battlements. It extends about one mile and a half east and west, and is surrounded with rocks, running out a cable's length from the shore. On the eastern and most elevated part of the *Almina* is the *Acho*, or *Castle of Ceuta*, standing in latitude $35^{\circ} 54' N.$, and in longitude $5^{\circ} 17' W.$ To the westward are six little hills: on the western skirt of the *Almina* are the suburbs; then the city, which is fortified between the suburbs and main land.

Punta Santa Catalina, the northernmost point of the *Almina*, is low, and has several rocky *islets* lying off it. Between this and the rocky *islets* of *El Campo* is the anchorage in the lesser *Bay of Ceuta*: here you will have indifferent riding in from 13 to 8 fathoms water, the ground being mostly sand and loose stones. To find the anchoring ground, you should observe and bring the *Culle del Obispo*, or *Bishop's Street*, open; this street commences on the northern side of the Governor's house; and this mark will lead you exactly to the spot. Moor N. E. and S. W., letting your longest cables be to the N. eastward.

S. W. $\frac{1}{2}$ S. (*S. W. by W. $\frac{1}{2}$ W.*) from the *Acho* (or *Castle*) of the *Almina* of *Ceuta*, lies the *Point of Castillejo*, low, round, and covered with trees, the coast between forming a *Bay*, with a point and the small island *del Mal Nombre*; and about S. $\frac{1}{2}$ W. (*S. S. W. $\frac{1}{2}$ W.*), distant 1 mile from the *Point of Castillejo*, is a river of

the same name. S. S. W. (*S. W.*), nearly 8 miles from the *Acho*, is the mountain *Negron*, rising near the sea, lofty and dark, having a square tower upon it; and S. $\frac{1}{2}$ E. (*S. by W. $\frac{1}{2}$ W.*) from the *Acho*, distant about 4 leagues, is *Cape Negro*, or *Porcas*, of moderate height, surrounded with islets, and having a round tower upon it. This tower is in latitude $35^{\circ} 41' 30''$ N., and in longitude $5^{\circ} 17'$ W.

Between *Point Almina* on the north, and *Cape Negro* on the south, is the *Great Bay of Ceuta*, being 11 miles long, and about 3 miles deep, in which a fleet may anchor in any convenient depth, on clean ground, at $1\frac{1}{2}$ or 2 miles from the shore; but there are some foul spots in from 10 to 17 fathoms water, which should be avoided. Here you may ride in smooth water, sheltered from winds from N. N. W. to S. W., but exposed to all others.

TETUAN BAY lies to the southward of *Cape Negro*, between it and *Cape Mazari*, or *Cape Tetuan*, at a distance of 3 leagues. Here a fleet may lie well sheltered from winds N. by W., West, and round to S. S. W., but every precaution must be taken to guard against those which blow on the shore. Here also, as in *Ceuta Bay*, is some foul ground; but this may be avoided by going no nearer the shore than into the depth of 14 fathoms. Here water may be obtained at the mouth of the *River Cus*, on the north side of which is the *Custom House*, a square white tower; and also at the *River Mazari*, further southward; and on application being made to the Governor of *Tetuan*, a ceremony not to be dispensed with, provisions may be obtained in abundance, and wood for fuel. Ships ride in perfect security on a sandy bottom, in from 16 to 23 fathoms: there is excellent anchorage in the former depth, with the *Rock of Gibraltar* appearing over the western declivity of the *Almina of Ceuta*, bearing N. by W. (*N. by E.*), *Cape Negro* N. N. W. (*North*), and the tower at the mouth of the *River Cus* open to the southward of *Tetuan*, bearing S. W. by W. (*W. by S.*); this is about 2 miles off shore: but further southward, with the same tower open to the northward of *Tetuan*, bearing W. S. W. or W. by S. (*West, or W. by N.*), is more convenient for watering. This place is readily known by *Cape Negro*, it being the first projecting land to the southward of *Ceuta*, and by the *Town of Tetuan*, being remarkably white, and standing 3 or 4 miles inland. Ships lying here in the winter season, and perceiving a swell setting in from the eastward, should immediately get under way; or should it not be thought advisable to anchor here, a vessel may keep under sail, on different tacks, either in winter or summer, and be ready to take advantage of the first easterly breeze, which will carry it through the Strait.

The *River of Tetuan* falls into the sea about a league and a half to the southward of *Cape Negro*, and is navigable for boats and small craft at high water. At its entrance is a small brick-built castle; and about a mile within the river is the *Custom House*. The *City of Tetuan* is above a league up the country, and reported to contain 16 or 17,000 inhabitants: these are chiefly Moors, Arabs, and Jews, who generally use the Spanish dialect, but much corrupted and imperfect; yet it is in this language all their commercial concerns are carried on. They are said to be more mild and civilized than most of the natives of Morocco. Formerly several European Consuls and merchants were resident there; but in 1770, an Englishman having shot a Moor, all Europeans were banished, and no longer allowed to establish themselves at this place; nevertheless, the English are permitted to touch there, and obtain supplies: thus a very considerable trade is carried on in provisions, &c. for *Gibraltar*, as vessels are compelled to come here, when the wind is in the west, and unfavourable for resorting to *Tangiers*. Our fleets, during the last war, often watered and victualled here; and there is a very convenient place for watering, distinguished by a white tower, about a mile to the southward of *Cape Mazari*. This operation is best performed by landing the casks, and rolling them over a sandy beach, about 30 yards wide, into the river.

Admiral Knight surveyed the *Bays of Tetuan and Ceuta* in the year 1799, and observes, "that in both Bays are some spots of foul ground, more particularly in *Ceuta Bay*, in the depth of from 10 to 17 fathoms; and that at the watering-place in *Tetuan Bay*, on some slight compliment being paid to the Governor of the place, fresh provisions of every kind may be obtained reasonably and abundantly, with plenty of wood for fuel. Here ships may ride in perfect safety, on a sandy bottom, in from 18 to 22 fathoms, with the wind at North by the West, to S. S. E., at the distance of 2 miles from the shore; but within that distance it will prove to be mostly rocky."

Ships are better sheltered in Ceuta than in Tetuan Bay; but on account of the situation of the garrison of Ceuta, it is less frequented in times of war. When the

easterly or Levant winds come on, it becomes necessary to immediately get under weigh. The usual approach of these winds is indicated by a swell, or current, from that quarter, and by a clear atmosphere for some hours before the passing clouds begin to cap the hills. When you see *Ape's Hill* and the summit of *Gibraltar* covered with clouds, be assured the Levanter, or easterly wind, is coming on, and will continue some time.

Observations on the Tides and Currents in the Strait of Gibraltar.

The tides on both sides of the *Strait* would be regular, if it were not for the influential effect of the prevailing winds. From *Cadiz* the flood sets towards *Cape Trafalgar*, where it is high water at a quarter after five, full and change. At *Tarifa* it is high water at about a quarter after eleven; at *Gibraltar* at a quarter after twelve o'clock, the tide rising 5 feet. The flood again sets out towards *Cape Carnero*, and thence to *Tarifa*, so that it meets the tide from the west off *Trafalgar*, where it is low ebb at the time it is high water at *Tarifa*. The tide in this way runs as far as 2 miles off the coast; and at that distance from *Tarifa* it flows until two o'clock. The tide will continue perceptible as far as *Malaga*, where it rises about 3 feet; but beyond this it gradually becomes imperceptible.

On the southern coast of the *Strait*, from *Cape Spartel* to *Ape's Hill*, another tide runs along shore to the westward, as shewn in the Charts. In the great cove, opposite to *Tarifa*, it is high water at ten o'clock; but more to the westward, and near *Tangier*, at twelve; and in the offing it continues an hour longer.

In the middle of the *Strait*, the current from the Atlantic Ocean generally sets in to the eastward. This is supposed to be occasioned by the great and continual evaporation constantly going on from the surface of the Mediterranean Sea, the intermediate rivers not affording a supply sufficient to restore the exhaustion; while also under-currents have been conjectured to return a great portion of these waters into the Atlantic back again; and the changes, counter-currents, and whirlpools which take place near the shores, caused by varying winds, contribute to restore and keep up the equilibrium. However this may be, it is ascertained, as before stated, that there actually is a tide setting both outward and inward along each shore: that, from beyond the vicinity of *Malaga*, the flood sets round the coast in a westerly direction towards *Gibraltar*, and thence along the *Coast of Spain*, until it meets that which comes from the west off *Cape Trafalgar*; and that a similar current, and in a similar direction, sets along the African shore, until it passes *Cape Spartel*, and is lost in the Atlantic Ocean.

But although it has hitherto been asserted that the central stream invariably and unremittingly runs eastward, very rarely, if ever, standing still, yet there is reason to believe this is not strictly the fact, but that a current is sometimes to be found running outward to the west, occasioned perhaps by an extraordinary tide, a surcharge of water in the Mediterranean, or the prevalence and continuance of an easterly wind, or an union of all these circumstances together. This opinion seems to be strongly corroborated by the observations of several modern navigators; for Captain Malling, of H. M. Ship Cambridge, says, he is one of those persons who can bear testimony to the current running out of the *Strait*, with much greater velocity than ever he found it running into the Mediterranean. And Captain Livingston, in 1822, observed the general current in the *Strait* to run westward, instead of eastward, for some hours, all across the *Strait*, several vessels at this time being carried right out to the westward; and some of them drifted, in the centre of the *Strait*, from abreast of *Tarifa*, to nearly so far as to be opposite to *Cape Spartel*.

That under-currents do exist, and run in a direction opposite to the course of the surface, seems generally admitted, and in a great measure confirmed by the following circumstances. A vessel, some years ago, was lost at *Ceuta*, and afterwards thrown up at *Tarifa*, on the European shore, a distance of 17 miles to the W. N. W.; and in 1712, the Phoenix, of Marseilles, gave chase to a Dutch vessel near *Ceuta Point*, and came up with her in the middle of the *Strait*, between *Tarifa* and *Tangier*, where, giving her one broadside, she sunk; a few days after, the sunken vessel arose on the shore near *Tangier*, at least 4 leagues to the westward of the place where she went down, and directly in opposition to the common surface-current: now this could only be occasioned by a re-currency, or returning current in the deep water, in the middle of the *Strait*, that sets outward to the Atlantic Ocean. Captain Barret states that in 1820, when he was off *Tangier Bay*, he felt the current set, for above three

hours, decidedly to the westward; and that while the water at the surface was going apparently to the eastward, a westerly current had hold of the bottom of the ship. A London ship, when at anchor at *Tarifa*, found the tide running at the rate of $5\frac{1}{2}$ knots; and Captain Walker says, he has been obliged to have a man at the wheel, steering his vessel for the tide, when at anchor under *Cape Spartel*.

A respectable writer, speaking of this under-current, states that the Mediterranean Sea is said to be rather saltier than the waters of the Atlantic Ocean. That it is not more so, is ascribed to an under-current, saltier than that of the ocean, which runs out of the *Strait*, and unloads the waters of their excess of salt.

From the above it will appear that the current of the *Strait of Gibraltar* is in some measure regulated by the tides, and that its velocity will, according to the tide, vary from 3 to 6 and 7 miles an hour. To the westward of *Tarifa*, about the full and change of the moon, it sometimes sets to the westward quite across the *Strait*; but eastward of *Tarifa* it sets, more or less, to the eastward. Mr. Reiner, Pilot of *Gibraltar*, says, that with westerly winds, the current in the middle of the *Strait*, between *Europa Point* and *Ceuta*, will often equal the rapidity of 7 miles an hour, and that at such times every *Point* in the *Bay* will form an eddy or whirlpool at a considerable distance from the land, which may prove dangerous to approach.

From all these considerations, it appears that a ship, coming from the Atlantic with an easterly wind, may easily beat through the *Strait of Gibraltar* into the *Mediterranean Sea*, by keeping and tacking between the two boundaries of the central current, but always somewhat nearer to the Coast of Africa than to the European shore, the winds thereabout being generally more moderate: for even when in the neighbourhood of *Tarifa*, the easterly wind is strong enough to put a ship past her close-reefed topsails; and should the gale from the eastward blow strong, and threaten a tempest from the S. eastward, you can then take shelter under *Cape Spartel* until it moderates. But if you should be within the *Strait*, and bound eastward, if a storm is threatened from the S. W. quarter, then you can run for, and take shelter under, *Almina*, or the *Point of Ceuta*.

*Observations on making for, and sailing through the Strait of Gibraltar,
either from the Westward or the Eastward.*

In making for the *Strait of Gibraltar* from the westward, the mariner will insensibly be struck with the appearance of the rival mountainous shores of Europe and Africa, vying with each other in their towering grandeur and sublimity; while the singular prospect of the almost insulated *Rock of Gibraltar*, jutting out into the sea, and forming the narrow passage into the Mediterranean, can scarcely fail of giving the idea of the vast waters of the Atlantic having originally forced their way between, and thus separated the two Continents, one from the other; while these magnificent and prominent features of nature, enlivened by a brilliant sun, and that luminous tint of colouring peculiar to southern latitudes, constitute a panorama of inimitable scenery, which the pencil can but feebly describe.

Vessels bound to *Gibraltar* from the westward, and having passed to the southward of the *Cabezos Shoals*, described in page 2, should haul in for the Spanish main, especially if the wind should be to the northward of west, otherwise the current may carry them to the eastward of the *Rock*; therefore, when the *Town of San Roque* is seen open to the eastward of the rocks off *Cape Carnero*, or *Cabrila*, they ought to immediately haul up for the *Bay*, giving the rocks off the *Cape* a good berth. Having run up the *Bay* so far as to open the *Devil's Tower*, which stands at the N. end of *Gibraltar*, then they should steer directly towards it, and anchor in whatever depth they may think most convenient, taking care to moor S. E. and N. W., so as to have an open hawse with a S. W. wind.

In coming from the westward, and bound up the Mediterranean, the best anchorage will be from abreast of the northern part of *Algeciras* on towards the *River Palmes*, as before described: you will then be able, with a westerly wind, to clear *Europa Point*; but if from the Mediterranean, and you are going westward, you should run for the *Bridge of Mayorga*; then, with an easterly wind, you may weather *Point Cabrila*.

In winter-time the best station is from the *Palmes* to *Fort Mirador*, for there you will be sheltered from S. E. winds, which are considered the most dangerous of any; and if you are between the *Bridge* and *Algeciras*, moor N. E. and S. W., with 2 cables on the N. E. anchor; but if between the *Bridge* and *Gibraltar*, moor N. W. and S. E., with two cables on the S. E. anchor; for there the S. W. winds are the

worst: but if unable to get to either of these stations, and the wind within the *Bay* differs from that without, then come to in that situation most convenient for running out with the wind you are desirous of.

Should you happen to be carried by the current to the eastward of the *Rock of Gibraltar*, you may obtain good anchorage in 20 fathoms water, having the *Cabrita* and *Europa Points* in one, and the *Devil's Tower* just open: there are gradual soundings towards the *Rock*, shoaling to 4 fathoms. From this anchorage you may, by taking the western tide, turn into *Gibraltar Bay*, only by standing a very little way off *Europa Point*. You will readily perceive the ripple between the current and the tide; and when you think you will be able to weather the *Point*, it is not advisable to stand direct into the *Bay*, but make a short tack or two in the tide that sets from *Europa* to *Cabrita Point*; otherwise you may get into the eddy tide, which will take you on the weather bow, and disappoint and deceive you.

In sailing out of the *Bay* from the anchorage, with a strong easterly wind, set no square-sails until you have advanced to leeward of the flaws.

Coming from the eastward for *Gibraltar Bay*, give *Europa Point* a good berth, because the *Rock of Gibraltar* frequently stops the easterly wind, unless it blows very strong; it then comes away to the westward on shore: the currents also near the *Point* are strong, and often run contrary to one another.

Ships from the eastward, with a Levant wind, intending to anchor between the *Old Mole* and the *Riser Palmones*, should, if it blows fresh, give *Europa Point* a berth of half a mile, and run to leeward until they are nearly half way across the *Bay*, in order to avoid the furious gusts of wind and eddies from the rock, which greatly endanger the masts and yards; and when to leeward of these dangerous flaws, haul up toward the head of the *Bay*, where a steady wind will be found blowing over the neutral ground: she may then, by short boards, work up to the anchorage, or to the *Old Mole*, if necessary.

In coming from the eastward with clear weather, the *Rock of Gibraltar* will be seen 40 miles off, being higher at the northward than to the south, and looking like an *Island*; at the same time you will perceive the *Sierra Bullones*, or *Ape's Hill*, on the *African Coast*, which also appears isolated; between these two you may enter boldly.

It is no uncommon thing, in dark weather, to mistake the *Rock of Gibraltar* for the *Sierra Bullones*, and *La Carbonera* for the *Rock*. *La Carbonera* is a lofty extensive ridge, 6 miles north of *Gibraltar*, having a watch-tower on its summit; the land between it and the *Rock* being very low, as already noticed. This is a dangerous mistake, and has often proved fatal; for the vessel will get embayed with E. or S. E. winds in the *Bay of Tunara*, which is falsely imagined to be the *Entrance of the Strait of Gibraltar*; and thus she runs on shore. A similar error happens when the *Sierra Bullones* is mistaken for the *Rock*, and the low lands to the southward of that ridge, for the *Strait's Mouth*: you will then be driven by N. E. and East winds into, and probably wrecked within, the *Bay of Tetuan*.

To prevent such accidents, says Tofino, "when coming from the Mediterranean, it will be advisable to run for the *Coast of Spain*, and endeavour to get sight of the *Sierra de Estapona*, in latitude $36^{\circ} 28'$ N., the highest part of which, and the *Rock of Gibraltar*, bear from each other N. N. E. $\frac{1}{2}$ N. (N. E. $\frac{1}{2}$ N.), and S. S. W. $\frac{1}{2}$ S. (S. W. $\frac{1}{2}$ S.) nearly. Without this landmark it will hardly be prudent to attempt the *Strait*; but by standing off and on, in thick blowing weather, the currents setting to the eastward, will prove beneficial."

SECTION II.

THE COAST OF SPAIN.

1. FROM GIBRALTAR TO CAPE DE GATA, OR GAT.

Variation, Two Points West.

From *Europa Point* the coast runs in the general direction of N. N. E. (N. E.), so far as *Chullera*, or *Calera Tower*, a distance of 12 miles. The shores are mostly low and sandy, with some projecting and rocky points: on these you will pass the

Devil's Tower and *Fort St. Barbara*, already noticed. About three-quarters of a mile from *St. Barbara* is the *Battery of Tunara*; $1\frac{1}{2}$ mile further, in the same direction, stands *Nueva Tower*, erected upon a rocky point; 2 miles beyond *Torre Nueva* is the *Point Carbonera*, somewhat elevated, and having also a *watch-tower* upon it. The shore now runs in nearly a similar direction to *Point Guadiaro*, near which is a small river of that name, where coasting vessels enter at high water, and are well sheltered. Further on is the *Point and Tower of Chullera*, forming a sort of projecting eminence, and rocky: here the coast becomes higher, and at 2 miles' distance stands *Savinilla Castle*, built near the water's edge: between them, $1\frac{1}{2}$ cable's length from the shore, is the *Alcorin Rock*; the intermediate space forming a road, safe with winds from S. W. to N. W., but open to all others. The water is deep, and the south-easters are considered most dangerous. Fresh water may be obtained from several rivulets hereabout. *Manilva Town* is built on a rising ground, half a league from the *Savinilla Castle*: $1\frac{1}{2}$ mile further is the *Tower of Mora*, encircled with rocks. About 2 cables' length, nearly S. E. by S. (*S. by E.*) from the tower, is a *sunken rock*, visible at low water, but breaking at high sea; half a mile from the tower is *Las Palomas Island*; $1\frac{1}{2}$ mile from the tower is that of *Arroyo Barquero*; and 2 miles off is *Salvieja Tower*.

ESTAPONA. Nearly one-third of a mile from *Salvieja Tower* is *Point La Doncella*. This is the S. W. extremity of the low shore of *Estapona*: the N. E. point is called *Maymoles*. These *Points* are 2 miles asunder, having between them a good road for small vessels, in 4 and 5 fathoms; and for larger ships further out, in from 14 to 18 fathoms, anchoring opposite the town, and sheltered from N. W. winds. You may obtain water on the beach before the town, or to the westward, at the *River Monte Roxo*. Off *Estapona*, about 3 miles S. E. by E. (*S. E. by S.*), a shoal is said to exist, which must be carefully avoided; it is called in the French Charts, *Ouvreil Oeil*: this is omitted in the Charts of Don Tofino. The direct course and distance from *Europa Point* to *Estapona* are N. N. E. $\frac{1}{2}$ E. (*N. E. $\frac{1}{2}$ E.*), about 7 leagues.

N. W. $\frac{1}{4}$ N. (*N. by W. $\frac{3}{4}$ W.*) from *Estapona*, about 5 miles, are the high lands of *Bermeja*, or *Sierra de Estapona*, which we have already spoken of as a good landmark to persons coming from the eastward, for the *Strait of Gibraltar*.

Four miles and three-quarters from *Estapona* is the *Tower of Gualmasa*, from which a sandy point, with a rocky extremity, runs out nearly S. W. (*S. W.*); within this space are some rivulets of fresh water, and the *Towers of El Padron* and *Albelarin*.

It may here be observed that from *Estapona* to *Europa Point* vessels may anchor at any part with W. and N. W. winds, only keeping a mile from the shore; or they may, by taking advantage of the tides, ply to windward, until they gain the *Bay of Gibraltar*.

Two miles and three-quarters from the *Tower of Gualmasa* is that of *Banos*, built on a small sandy eminence a quarter of a mile from the *Point*; between them is *Saladillo Tower*, to the northward of which is *Monte Mayor*, a remarkable hill, with the ruins of a *Castle* upon its summit. To the eastward of *Banos Tower* is the small *River of Banos*, and further on you will pass *Bovedos* and *Duque*, then the *River Verde*, these rivulets having plenty of water, especially in winter-time. The *Tower of Ancon* is a little to the eastward of the latter; here a rocky point runs out, called *Negules*.

CASTLE OF ST. LUIS, AND TOWN OF MARBELLA. About $6\frac{1}{4}$ miles N. 65° E. (*E. $\frac{1}{4}$ N.*) from *Banos*, stand the *Castle of St. Luis* and *Town of Marbella*, the latter joining the former. The *Castle* is erected at the distance of half a cable's length from the beach, and a ledge stretches out from it about the length of two cables to the S. Eastward: the rocks nearest to the shore appear above water, but those further out are always covered. From the *Castle*, westward, is a range of warehouses and stores, from the most westerly of which another ledge runs out about 2 cables' length, but with good water over it: between these two ledges there is anchorage with 8 fathoms water, and a sandy bottom. Here the largest vessels may come to at one mile S. S. W. (*South*) of the *Town*, having 18 fathoms, sandy ground, well defended from the sea and from off-shore winds: here plenty of good water may easily be obtained. N. W. $\frac{1}{4}$ N. (*N. by W. $\frac{3}{4}$ W.*) from the *Castle*, inland about $2\frac{1}{4}$ miles, is the highest part of the *Sierra de Marbella*; and N. N. W. $\frac{1}{4}$ N. (*N. $\frac{1}{4}$ E.*) from that, distant $2\frac{1}{4}$ miles, is the small *Peak of Juana*, serving to point out this part of the land, and warning the mariner of his approach toward, and also shewing the direction of, the *Rock of Gibraltar*.

To the eastward the shore is clean, and free from rocks. Rather more than a mile from *Marbella* is the *Tower of Real*, and further on that of *Zaragoza*, both having

small rivers to the eastward: $1\frac{1}{2}$ mile from *Zaragoza* is an uncommonly large tower, called *Lance de las Cannas*, having some rocks before it: one mile further is *Ladrones Tower*, situated near a *Point* of the same name. *Cala Honda* stands above two miles beyond, and between are a kind of fortification and two small brooks. *Cala Moral* is built upon a high point, which has a regular slope towards the sea, where some rocks lie nearly even with the water's edge. The shore now bends inward circularly, and ends in a *Point* to the eastward, having the *Tower of Cala de Burra* upon it; there are several rocks running from it, the length of a cable or more. The coast then turns to the northward, and about $1\frac{1}{2}$ mile N. N. E. $\frac{1}{4}$ E. (N. E. $\frac{1}{4}$ E.) from *Cala de Burra Tower*, is the ancient *Castle of Frangerola*, standing on an eminence, and having 5 or 6 towers. From *Burra Point* to *Point Frangerola* it is rocky; but from thence, $2\frac{1}{2}$ miles, to *Torre Blanca*, the beach is low, clean, and sandy; the anchorage before it being good for vessels of all sizes, and defended from all but N. E. winds. Water may be had N. E. (E. N. E.) of the *Castle*.

The French Charts place two small banks south of *Frangerola Point*: of these the late Spanish Surveys take no notice; we therefore cannot vouch for their existence.

E. N. E. (East) from *Torre Blanca*, $2\frac{1}{2}$ miles, is *Quebrada Tower*, having *Bella Almadena* between them. The shore is high and steep; several watch-towers stand on this part, one of which is called *Bermeja*, being about a mile from *Quebrada Tower*: here, at the distance of about half a mile from the shore, lies a small and dangerous sunken rock, about the size of the hull of a ship, over which are only 8 and 9 feet water. Vessels therefore should be careful to give this part a berth of a full mile; the bottom too is rocky all the way from *Quebrada* to *Point Saltillo*. About half a league from *Torre Bermeja* is *Point Molinos*, from which, to the *Castle*, the shores are clean, and water deep. *Point Molinos* is low, having on its eastern side shelter from the W. and N. W. winds. Vessels commonly anchor in 23 and 25 fathoms water, or less, taking care to bring-to, with the *Castle* bearing from West (W. N. W.) to S. W. (W. S. W.); from thence they may readily get under weigh, should the wind chop round to the eastward. The land now becomes low for several miles, and the *Rio Gordo* discharges a considerable body of water into the sea within this space, forming a sandy flat, which runs out a full mile, with shallow water. About $3\frac{1}{2}$ miles from the *Rio Gordo* is the *Ramba de Qualdima*, a small river which lies near the western point, or entrance to *Malaga*.

MALAGA. The *City of Malaga* is large, and much esteemed for its wines. It is situated at the inland extremity of a deep bay, with a large plain to the northward, being sheltered by lofty mountains both on the east and west, whose summits in winter are frequently covered with snow, but whose sides are clothed with vineyards and plantations of olives, almond, orange, and lemon trees. On one of these mountains is an old fortress, called *Gibralfuro*; and a little above the town is another fort, named *Alcazaba*, now in a state of decay. The city itself is of a circular form, surrounded by a double wall, and from a distance wears a formidable appearance; but the streets are narrow, and though the houses are large, they are commonly obscured by private buildings: there are no squares, and the only edifices worthy of notice are the Cathedral and the Custom-house. There is a noble public walk, called *Alameda*, 80 feet wide, and planted with orange and oleander trees, having carriage roads on each side, and at its extremity a marble fountain.

The *Harbour of Malaga* can accommodate about 400 merchant vessels, and 20 ships of the line; those of the greatest burden coming close up to the quays. Ships may enter with all winds, and lie completely sheltered. On its eastern side a fine *Mole* runs out full 700 yards, upon the end of which stands a lighthouse, which exhibits a revolving light, each face shewing 7 reflectors: when seen from a distance, the light is obscured for three-quarters of a minute, and a very bright light succeeds for 15 seconds, thus constantly revolving every minute. This lighthouse, according to *Tofino* and *Captain Smyth*, is in latitude $36^{\circ} 43' 30''$ N., and longitude $4^{\circ} 25'$ W.

A shoal has lately grown up about the *Mole-head*, surrounding the whole point to the distance of one-sixteenth part of a mile; at the point you will have 13 and 14 feet, and immediately ground. This harbour, as well as that of *Barcelona*, appears to be growing up; at present there is more water inside than at the entrance, where there are 30 feet. The best anchorage outside of the bay, for large vessels, will be in 11 fathoms, the lighthouse and cathedral being in a line.

Vessels from the westward, bound for *Malaga*, should give the *Point of Torre Molinos* a good berth, steering so as to keep the *Town of Malaga* open on the larboard bow; they will then go clear of the sandy flats of the *Rio Gordo*, and bringing the

lantern on the *Mole* in one with the *Chapel of St. Christopher*, they will get into good anchorage in 4½ fathoms; but if with a large vessel, keep the above marks a little open, steering a little more to the eastward, coming into no less than 6½ and 7 fathoms, sandy ground. Opposite the *river* the bottom is *mud*; but having passed it, it becomes *sand* again; then standing on nearly N. E. by N. (*N. E. by E.*), you will go direct to the *Point of the Mole*.

With a S. W. wind, having made *Point Torre Molinos*, you will observe the wind drawing more from the land, which will oblige you to come-to outside of the *Mole*; but should it blow steadily from the S. W., and you wish to get into the *road*, you should let go an anchor on the outside of the *Mole*, and veering away one or more cables on the anchor, send another cable on shore, in order to moor with four cables, head and stern, parallel to the *Mole*. This is only requisite with large ships; smaller vessels let go an anchor abreast of the *Mole*, at less than a cable's distance from it, that anchor remaining S. W. when moored.

When it blows hard from the S. W. or South, men-of-war should not run for the *Mole*; but with strong gales at East or S. E., they may bring up, by letting go two anchors as close as possible to the *Point of the Mole*, and veering out half a cable on each anchor. This should only be done in cases of emergency, for it will always be safer to keep out to sea.

When intending to anchor in the *road*, a vessel should come-to to the eastward of the meridian of the *Mole*, remaining at single anchor in a suitable depth of water, ready to get under weigh, should the wind change to East or S. E., and either weather the *Point of Torre Molinos*, or run within the *Mole*. It is high water at *Malaga* at 12 o'clock, full and change, the tides rising about 3 feet: the current runs along shore each way about 8 hours, the flood setting to the westward. All vessels, in stormy weather, unless it blows hard from the northward, must go within the *Mole*, for with any other winds they cannot lay outside in safety.

VELEZ MALAGA. From *Malaga* to *Velez Malaga*, the coast runs nearly East (*E. S. E.*), having three *watch-towers*: a small part of this shore, nearest to the *Bay of Malaga*, is *rocky*; but further on to *Point Velez*, it is low and sandy. On the eastern part of *Velez Malaga* is a river, at the mouth of which is a *sandy flat*, reaching a small way out. There also is a *sandbank* running from the western point, by which this river is barred; and about three miles N. N. E. (*N. E.*) is another *rivulet*. Between these, inland, stands the *City or Town of Velez Malaga*, being the first of any importance to the eastward of *Malaga*: its appearance is exceedingly picturesque. There are *three Spires*, which form objects most remarkable: one of these, appearing to be the lowest, stands on a slope, and is of a reddish colour; the other two are of a dirty white. The highest of all appears to be a *tower*, square at the top, and probably attached to some church or other building standing on an eminence that commands the town; but forming an insignificant object when compared with the surrounding mountains. Here you may anchor opposite some fishermen's cottages, in 8, 9, 10, 11, or 12 fathoms, good ground. This place is convenient for all vessels, and sheltered from westerly winds, the bottom being sand and chalk; but it is advisable to have a warp out to the S. E., in case of a change of wind to that quarter. To the westward of the anchorage is a singularly stratified mountain, being whitish, and like chalk; and at the west end of the mountain there is a break, looking like a chalk-pit, or quarry of white stone, while under the strata, at the east end of the mountain, the ground has the semblance of a sand-hill. In front of the mountain, and between it and the sea, are 2 or 3 houses and a round tower; while to the eastward you will observe a very conspicuous white house.

When *Velez Malaga* bears N. by W. (*N. by E.*), the low ground in front of it, with thick groves of trees of the richest verdure, the fine appearance of the city, and the neat looking villas which surround it, together with the picturesque mountains which encircle the whole, form a landscape most beautiful. There are two small villages between *Velez* and the shore, one of which has a church. Down the valley, to the westward of the *Torres del Mar*, is the bed of a mountain torrent, nearly dry.

When bearing N. by E. ½ E. (*N. E. by N. ½ E.*), the two principal *Spires of Velez Malaga* will be in one; and when seen to be so, and you are half a league off the land, the highest tower will appear to be the remains of an old fortress situated upon a rocky mountain.

The mouth of the *River of Velez Malaga*, falling from between two mountains, may be distinguished by the low land between, and the grove of high trees on the banks of the river; while all the others are fruit-trees. The bank of soundings, when the sun shines, may be clearly distinguished by the green water upon it;

but with the mouth of the river bearing N. $\frac{1}{2}$ W. (N. by E. $\frac{1}{2}$ E.), distant 1 mile, there will be found more than 16 fathoms, the bank extending considerably further out.

On the east side of *Velez* you will discover a valley encircled with hills, but open to seaward, with villas, and groves of orange and lemon trees. At the entrance of this valley stands the *Torres del Mar*, which is a square castle with four towers, and one in the centre. To the eastward of this is a small tower, apparently leaning much to one side.

NERJA. From *Torres Point* the coast runs E. $\frac{1}{2}$ N. (E. S. E. $\frac{1}{2}$ E.) to *Nerja*, being high and steep, without any beach. At *Nerja* is a *roadstead*, sheltered from W. and N. W. winds, but open to the East and S. E.; you will therefore be upon your guard, should winds from the latter quarter come on. Plenty of good water may be obtained at *Nerja*, but not to be come at conveniently.

HERRADURA. The shore here winds to the E. by S. (S. E. by E.) 5 miles, forming the *Bay of Herradura*, guarded by a *watch-tower* on each *Point*; they are distant from each other about 2 miles, the *Bay* bending inward about $1\frac{1}{2}$ mile, with the *Castle of Mora* on the beach. This is a dangerous *roadstead*, particularly in winter; for should contrary winds spring up, the vessel will not have room to turn, and must inevitably be driven on shore at the bottom of the beach, which is the only chance of saving the lives of the crew. The eastern point of the *Bay* is called *Monas*; beyond which is the *Bay of Berengueles*, sheltered from westerly winds: here vessels of all sizes may ride in 12, 14, and 16 fathoms, bringing *Monas Point* to bear S. W. by W. $\frac{1}{2}$ S. (W. by S. $\frac{1}{2}$ S.): the shores are high and rocky, with some small spots of beach. In the north-westernmost part of the *Bay* is the *Island of Penon de las Cavallas*, on the east side of which the anchorage is clean; but the other parts are rocky, and very injurious to the cables of vessels riding there. The heavy sea, which commonly sets in with easterly winds, renders this of little use.

ALMUNECAR TOWN is small, and lies a little further to the eastward, having good fresh water. The anchorages are on each side of the rocky point of *St. Christoval*; that on the east side is fitted for westerly winds, where you will come-to, in a depth of 8 or 9 fathoms, about a cable and a half's length from the rocks; thence, should the wind veer round to the east, you will be able to weather the *Point*, deep water being close to it; but this anchorage is fit only for small vessels, and by them should only be used in cases of emergency, for easterly winds are common on this coast, blowing strong and dangerous. At the termination of a beach on the east side of *St. Christoval*, is a round tower, situated on a high point; having passed which, you will reach the *Bay of Belilla*, or *Velilla*, where you may find anchorage to the south-eastward of the tower, making fast a cable to the rocks W. N. W. (N. W.), and an anchor to the S. S. E. (S. E.) The ground in 10 and 11 fathoms is clean; but nearer the shore it becomes rocky. Good water can be obtained in the valley to the eastward. From the *Bay of Valilla* the shore continues high as far as *Salobrina*; there you will observe a great rock, being about $5\frac{1}{2}$ miles from *Point St. Christoval*, within which space are two *watch-towers*.

SALOBRINA BEACH is formed by the *River Motril*, whose point affords shelter from the Levant winds to vessels which anchor along the shore; the best situation being to the westward of the *Great Penon Rock*, in from 8 to 16 fathoms, muddy ground, from whence you may, with the wind at west, clear the *Point*; half a mile from which you will find 18 fathoms water. *Salobrina* stands high, and is a little way inland. Water may commodiously be obtained at the foot of the rock above mentioned, and in various places adjacent.

MOTRIL. Having passed the *Point of Motril River*, a low beach extends to *Cape Sacratif*, a distance of $9\frac{1}{2}$ miles: with sea-winds no anchorage is to be found within this space; but with winds off shore, vessels may ride. The *Castle of Varadero* and *Town of Motril* are within this sandy beach, the former being about 4 miles from *Motril Point*, and the latter standing 2 miles from it inland. *Torre Nueva* also is situated between the *Varadero* and *Sacratif Point*.

CAPE SACRATIF, called also *Corchuna*, in latitude $36^{\circ} 41' 30''$ N., and longitude $3^{\circ} 26' 34''$ W., is high land, rugged, and steep, having a round tower upon its summit; there is a small Cove to the eastward, called *Cala del Chuco*, where stands a small tower, near 2 miles from which is the *Castle of Corchuna*, and near it the *Tower de los Llanos*, built on a projecting point of land. All this coast is rocky and foul. Having cleared the *Point de los Llanos*, you will arrive at *Cala Honda*, a small place, which coasters frequent with winds from the East, round by North, to W. S. W.; but it is highly dangerous, and totally useless to large vessels. Along the open beach,

from the tower to the cove, vessels may anchor; for half a cable's length from the shore the depth will be 7 fathoms: it will therefore be found necessary to anchor near the land.

From *Cala Honda* the coast is of considerable height, precipitous and uneven, as far as *Point Melonar*, which is 3 miles from *Point de los Llanos*. Midway is *Rayjanu Creek*, frequented by coasters, having good fresh water within it. Upon *Point Melonar* stands a watch-tower, very high; seven-tenths of a mile from which is the *Castle Ferro*, situated also on the summit of a hill. Here is a good road for vessels with W. and N. W. winds; but they will drive when it blows hard, for the ground is mud; and East and S. E. winds are right on the shore, so that it will hardly be possible for a vessel to clear the land. West of the *Castle* there is a well, and to the eastward an open beach, called *Cambrilles*, having a small *Tower*; but this place should not be attempted, for there is no safe anchorage.

For the space of 9 miles from *Castle Ferro* to *La Ribida*, the coast is high, foul, and rocky, with no place of anchorage; on it are stationed four watch-towers. The *Castle of Ribida* has a spot of sandy beach before it, but open to all winds from seaward; there is a watch-tower about 5 miles from *Rabida*, called *La Guarca*.

ADRA. Three miles beyond *Guarca* is *Adra*, the shore continuing all the way rocky and high; but at *Adra* there is a beach, affording shelter from E. to N. westerly winds for all kinds of vessels: here you may ride in 7 or 8 fathoms, good holding ground, clay and mud, the *Castle* bearing N. $\frac{1}{2}$ E. (N. N. E. $\frac{1}{4}$ E.), about 2 $\frac{1}{2}$ cables' length from the shore. This roadstead is in length half a mile, having a river at the end of the beach: from hence you may readily put out to sea, when exposed to S. E., S. W., or West winds, and good water may be obtained from the town. The coast from the river eastward is low, having some *sunken rocks* near the land. Above 2 miles from the *River Adra* is a tower, called *Aljamilla*, near which are several rocks, and between are two lagoons, called the *Albuferas*.

From the *Tower of Aljamilla* the shore runs nearly S. E. (S. S. E.) 5 $\frac{1}{2}$ miles, low and sandy, being the beginning of the *Plains of Almeria*. The small *Tower of Belerma* is within the above space, from which, to the S. E. point, vessels may be sheltered from the east winds; but S. W. winds blow right on the shore, rendering it unfit for anchorage in winter; and should any large ship seek this place with S. E. winds, let her come to S. S. W. (S. W.) of the *Tower* in 6 $\frac{1}{2}$ fathoms water, sandy ground, for there the land forms a small light. The water here is not good. Inland, the high mountains of *Granada*, which commenced near *Velez Malaga*, here terminate: the highest of these is the *Peak of Sacratif*; they are constantly enveloped in fogs, and their summits covered with snow.

Point Moro is higher than the other parts of the coast. The *Castle of Guardias Viejas*, where the *Llanos*, or *Plains of Almeria*, commence, stands at a little distance inland from the *Point of Moro*, and from this *Point* the coast runs nearly East (E. S. E.), 7 $\frac{1}{2}$ miles to *Point del Savinal*. Within this space is the small *Bay*, or *Haven*, of *Banos*, shallow, and with several sandbanks. The east point of this *Bay* is called *Point Sentinas*, from whence runs out a ledge of rocks to the southward half a mile. Upon this point is a small tower, and between the above ledge of rocks and the tower is a small channel, fit only for small craft and coasters.

ALBORAN ISLAND AND ADJACENT SHOALS. In the middle of this part of the Mediterranean Sea, and nearly on the meridian of *Adra*, in latitude 35° 56' N., and longitude 3° 0' 40" W., lies the small *Island of Alboran*, of moderate height and level surface, being about half a mile in length, and a quarter of a mile in breadth; it is surrounded by breakers, and may in clear weather be seen from 3 to 4 leagues off, but considered at night an object of some danger. It is steep-to, and perpendicular on its southern side, but not equally so to the northward. Its surface is nearly level: at about half a cable's length from its eastern side is a small islet, and anchorage may be obtained there in from 25 to 30 fathoms. The current in the vicinity of the island generally sets strongly towards the east.

At the distance of 28 miles more to the eastward, and upon a parallel a little to the northward of *Alboran*, is a *Bank* about 4 miles long from E. to W., and 2 miles broad, on which vessels have frequently come to anchor in from 37 to 50 fathoms: it may be distinguished by the water rippling over it.

There is also a small shoal between *Alboran* and *Guardias Viejas*, lying in latitude 36° 20' 30", or 7 leagues South (S. S. W.) from the latter, and 8 $\frac{1}{2}$ leagues N. N. E. $\frac{1}{2}$ N. (N. E. $\frac{1}{4}$ N.) from the former. About this bank we know not of any danger; but the Spanish Surveyors say it should be carefully avoided, especially

in a heavy sea, or blowing weather, as many disasters have occurred through passing over it; and the waves frequently break violently upon it.

From *Point Sentinas* to *Point Savinal* the distance is nearly 4 miles, all low land, and shallow water. It has frequently happened that vessels from the eastward, not attending to this low and flat part of the coast, but being intent upon the high land of the interior, have in thick weather, or in the night by moonlight, run themselves on shore; therefore it will be advisable, when abreast of *Cape de Gat*, which is a high and remarkable object, to steer W. by S. (*W. by N.*) until they find themselves on the meridian of the *Castle of Guardias Viejas*; for there, the coast drawing off to the northward, they may freely proceed without danger.

BAY OF ALMERIA. *Point St. Elena*, the eastern boundary of the *Llanos*, or *Plains of Almeria*, may also be considered as the S. western limit of the *Bay of Almeria*. It lies N. E. $\frac{1}{2}$ E. (*E. N. E. $\frac{1}{2}$ E.*), distant $2\frac{1}{2}$ miles from *Cape Savinal*, and is low and level. Between these *Points* stands the *Tower of Los Cerrillos*. The shores now wind in a northerly direction towards the *Castle* and *Round Tower of Roquetas*, where anchorage will be found for ships of any size, being sheltered from S. W., West, and N. W. winds. Having passed this *Castle*, and being about East from it, distant 1 mile, the customary riding is in 16 fathoms, the bottom coarse sand; but if you chuse to run in closer to the land, into 8 or 7 fathoms, you will be more exposed and open to the South, S. E., and East winds. In the first station it will be easier to get away, when the easterly winds set in; should it therefore blow from the S. E., you must first stand away N. E., then tack, and get to the southward, that you may be able to weather *Point Elena*, which having done, steer to the westward. The soundings in the *Bay of Almeria* are chiefly of mud, sand and mud, and coarse sand. The *Village of Roquetas* lies half a mile N. W. (*N. N. W.*) from the *Castle*, and the water obtained from it is generally not good. Nearly N. E. by E. (*E. by N.*) from the *Castle* is a rocky shoal, with 9 fathoms water over it: do not anchor over this, lest it should damage your cables.

Two miles and a quarter from the *Castle* is *Los Bajos Tower*, with two guns, and some rocks running out from it, which form a kind of bason, to which the country vessels resort; but it has only two fathoms water within it, and its entrance is toward the south. To the northward the land becomes high and steep, running in a N. easterly direction for 2 miles; it then turns eastward toward the *Point of Garrofa*: here stands a *tower* on the high land of the point, about 4 miles distant from *Los Bajos*. The *Tower of Rambla Honda* is about $1\frac{1}{2}$ mile from *Garrofa Tower*, bearing N. N. E. (*N. E.*); thence the shore continues easterly for $2\frac{1}{2}$ miles, so far as *Point Torrejon*; this is the western extremity of the road of *Almeria*, and defended by a *Fort*.

ALMERIA. This was once the most commercial port in Spain, but of late years it has fallen into comparative insignificance, its exports being principally barilla and lead. Its position is in latitude $36^{\circ} 51' 29''$ N., and longitude $2^{\circ} 39' 0''$ W. From the town to the river the shore runs E. by S. (*S. E. by E.*) for 2 miles. To be protected from the easterly winds, ships should moor S. S. W. (*S. W.*) of the *Bastion of La Trinidad*, at the east angle of the *City*, in from 9 to 14 fathoms, half-a-mile from the shore, sandy ground; but the best place for smaller vessels will be S. W. (*W. S. W.*) or W. S. W. (*West*) of the *Bastion*, in from 9 to 5 fathoms, having made fast on shore; they will then be opposite to the *Barracks*. Plenty of good water may be obtained here; but the anchorages abound with ballast-stones, which are apt to injure the cables. There is anchorage in *Almeria Bay* with 14 fathoms, the bottom blue clay, bringing the *Church* to bear N. E. by N. (*N. E. by E.*), and *Punta del Rios* N. N. E. $\frac{1}{2}$ E. (*N. E. $\frac{1}{2}$ E.*): this will prove good with westerly winds.

The *Point of Almeria River* is a sandy flat, and the shores continue the same beyond it, for the space of $3\frac{1}{2}$ miles E. N. E. $\frac{1}{2}$ N. (*E. $\frac{1}{2}$ N.*), forming another *Inlet* larger than *Almeria*: but this is both foul and rocky, and admits no anchorage whatever.

East (*E. S. E.*), 1 mile from *Almeria River's Point*, is *Bobar Tower*, and further on, at the bottom of this foul Bay, is *Perdigul Tower*; from thence an open beach extends S. S. E. (*South*), 3 miles, to the *Tower of Garcia*; thence S. E. (*S. S. E.*), nearly 3 miles, is *San Miguel*, and 7 miles further, in the same direction, is *Cape de Gata*, or *Gat*.

Between *San Miguel* and *Cape de Gat* is a sandy flat shore, where vessels may be protected from the Levant winds, having the *Cape* bearing from S. E. (*S. S. E.*) to East (*E. S. E.*), the depth being from 8 to 18 fathoms, and the bottom of sand; but this place should be resorted to only in cases of emergency, for S. W. winds render it

dangerous, and bring in a heavy sea: therefore it will be necessary to get immediately under weigh, on the first indication of such a wind.

Cape de Gata, or *Cape de Gat*, is in latitude $36^{\circ} 44' N.$, and longitude $2^{\circ} 14' 22'' W.$, and will easily be recognised by the *Tower of La Testa del Cabo*, standing on an eminence, this being the *Eastern Point* of the *Gulf of Almeria*; it is distant from *Point St. Elena*, the western point, 21 miles, bearing from each other *W. $\frac{1}{4}$ S.* and *E. $\frac{1}{4}$ N.* (*W. N. W. $\frac{1}{4}$ W.*) and (*E. S. E. $\frac{1}{4}$ E.*)

Nearly half a mile from *Testa Tower* stands the *Castle of St. Francis de Panla*, or *Corraletes*, on the summit of a high and steep hill, having a small *Island* and some *Rocks* close to it. Hereabout are many cross-currents, seemingly governed solely by the prevailing winds, which greatly contribute to increase the dangers of this part of the coast. Between *Testa* and *Corraletes* is a small beach, called the anchorage, sheltered from the east wind, with 9 and 8 fathoms water, the *Castle* bearing *E. S. E.*, (*S. E.*) 2 cables' length from the shore, or further; the bottom is sand and sea-weed. There is also a *rock* of white marble about half a mile south from the *Castle*, which has only 9 feet over it, and consequently is very dangerous. Between it and the land are 6 and 7 fathoms; but this passage is hazardous, and should not be attempted by a stranger, or with a scant wind.

Further east is the *Tower of Vela Blanca*, situated on the peak of a hill, which is remarkable for having a white spot on the side next the sea, visible a great way off.

Three miles and a quarter *E. N. E. $\frac{1}{4}$ N.* (*E. $\frac{1}{4}$ N.*) from the *Tower of Vela Blanca* is *St. Joseph's Castle*. The whole of this part from *Cape de Gat* is high and steep, with only one small spot of beach, called *Monsu*, having a well of good water.

GENERAL REMARKS.

It may here be proper to observe that the roadsteads on this coast, from *Gibraltar* to *Cape de Gat*, afford but little shelter from East and S. E. winds, which frequently blow in these parts with great violence. By a proper attention to the weather, you will be able to discover their coming on, and consequently be guarded in time against their effects, which otherwise oftentimes prove fatal. Observe, when the horizon is overcast, and thick whitish clouds arise in those quarters, these are a sure indication of winds shifting to that quarter of the compass; the beginning of the gale is generally gentle, and of short duration: you will, however, have time to get under sail before it gets round to the S. E., and freshens; it will then continue to blow with great fury for three or four days. Vessels must endeavour, with good sea-room, to ride out the gale.

2. FROM CAPE DE GAT TO CAPE St. ANTONIO.

Variation, One Point and Three Quarters West.

St. Joseph's Castle stands on a hill of moderate height, forming a point to two Bays. The *Western*, or *Genoves Harbour*, has a small beach half a mile long, fit only for small vessels, which lie in 3 fathoms water, on the north side of the S. W. point, sheltered from north, south, and west winds. Outside of the Bay large ships may ride in 6 or 7 fathoms, mud and sand, to the N. eastward of the inner anchorage; but they must beware of the west winds, which come down through the hollows of the mountains with great violence. The *Eastern*, or *St. Joseph's Bay*, affords a similar shelter, and vessels may anchor to the north-eastward of the *Castle* in 6 or 7 fathoms, sandy ground; but with E. and S. easterly winds, when blowing strong, it will be very difficult to get out to sea.

The *Tower of Cala Figuera* stands on the east side of this Bay, having a little creek, where small vessels sometimes run into for shelter from easterly winds. From this *Tower* the coast runs *E. N. E. $\frac{1}{4}$ N.* (*E. $\frac{1}{4}$ N.*) 1 mile to *Loma Pelada*. Here are two high hills, called the *Friars of Cape de Gat*; they are of a pyramidal form, and are usually the first land visible when approaching this part of the coast from the sea.

Beyond *Loma Pelada* is the Bay of the *Rocks of Mahomet Aracn*, bounded on the West by *Loma Pelada*, and on the East by *Point Pollacra*: these Points bear from each other N. E. by N. $\frac{1}{4}$ E. (*N. E. by E.*), and S. W. by S. $\frac{1}{4}$ W. (*S. W. by W.*), distant 5 miles; and at about one-third of the way stands *St. Philip's Castle*, on a Point about 2 miles from *Loma Pelada*, and near it is a small *Island*. Vessels may

anchor in this *Bay* along the shores, and large vessels at the distance of half a mile eastward of the *Castle*, in 12 fathoms, coarse sandy ground, protected from W. and S. W. winds; but the whole *Bay*, and all these anchorages round *Cape de Gat*, are open to East and S. E. winds, and should only be used in cases of necessity.

Pollacra Point has a small *Island* near it, appearing at a distance like a ship; on the *Point* is a *Tower*, built on the summit of *Wolf's Hill*, which is high and round. The coast now runs northward, forming several *points*, with a *cove* between each; the first of these is about 1 mile from *Lobo*, or *Wolf's Tower*, having a *Castle* within it, called *Roalquilar*. Vessels here may find shelter from the S. W. and West winds. Three miles further on you will see, at the bottom of a sandy creek, the *Tower of St. Pedro*, before which you may anchor with westerly winds: this by many is considered the best anchorage in the vicinity of *Cape de Gat*, as it forms a *Bay* of considerable depth; and vessels of any size may find shelter a cable and a half's length S. $\frac{1}{2}$ S. (S. S. E.) from the *Castle*, with winds at S. W., West, N. W., North, and even East: like the other places on this part, it is open to the S. E.; but this occasions only a small swell of the sea. Good water is to be obtained here, but with considerable trouble; the shore is hilly and steep: to the eastward is a small *river*, at the mouth of which there also is temporary anchorage. Sailing on to the northward, you will pass the *Point* and *Tower of Mesa*, and reach the *Town* and *Castle of Carbonera*, situated near the sea, in a sandy plain, and having a *roadstead*, defended from W. and S. W. winds. Vessels may anchor in any part, clear sandy ground; but the usual anchorage is with the *Castle* nearly N. N. E. $\frac{1}{2}$ E. (N. E.), distant 1 mile, in 24 fathoms, or with the *Island Carbonera* in one with the *Tower del Rayo*, distant 1 mile from the *Island*. This is the most convenient place, on account of getting-out to sea, should the wind veer about; but yet this *roadstead* is not much frequented, for the *Town of Carbonera* is destitute of any accommodation for vessels, and the water obtained there is not good; also when the wind comes S. E., there is little room for getting under sail, and riding out the gales that may happen from that quarter, as they are always hazardous. There is a small passage between the little *Island of Carbonera* and the *Main*, but not fit for ships to navigate. Off the *Point of Media Naranja* there is no danger, and the water is deep. At the extremity of the *Beach of Carbonera* is the *Torre del Rayo*, and to the northward the *River Dalias*, where, in fine weather, good water may readily be obtained. Further on, about a mile, is the *Torre del Penon*, built on a high rock. To the north-eastward, 2 miles, is *Massena's Tower*: the coast then runs N. by E. $\frac{1}{2}$ E. (N. E. by N.), beyond the *Point of Cantal*, towards *Moxacar*.

MOXACAR is situated on the summit of a *hill*, about a mile from the shore; and close behind it are the *Cabrera Mountains*, which are the highest land hereabout, and may be seen off *Cartagena*. *Moxacar* is 7 miles from the *Mouth* of the *River Dalias*, and in latitude $37^{\circ} 6' 20''$ N. The shore is generally low, until you reach the *Tower of Garrucha*, which is $2\frac{1}{2}$ miles from *Moxacar*, and stands on the beach of the *Town of Vera*. The shores are bold, without anchorage. To the northward is a *bight*, called the *Whirlpool of Vera*, on account of the variety of contending currents. It will always be advisable to go on the outside of it; and after passing a low beach, the land becomes elevated again, and you will see the *River Cuebas*, on the north side of which is the *Tower of Vallaricos*: it then becomes high and rocky. About 11 miles from *Cuebas* is the *Tower of St. Juan de los Ferreiros*, having a rock above water lying off the land. The coast from hence runs more easterly, to the *Port* and *Castle de las Aguilas*, where small vessels may lie defended from S. W. and W. winds, anchoring in $5\frac{1}{2}$ fathoms, with a bottom of sea-weeds. Here is an insulated rock, called *El Frayle*, forming a *point*. Five miles from *Aguilas* is a high hill projecting out into the sea, and called *Cabezo de Cope*, or the *Head of Cope*, in latitude $37^{\circ} 25' 5''$, longitude $1^{\circ} 33' 27''$ W. Near it the water is very deep, and on each side of it are good anchorages: that to the westward is called *Cala de la Bardina*, where vessels will find good shelter from the easterly winds, having 9 fathoms water within a cable's length of the beach, sandy ground; this anchorage is only open to the South wind, and that seldom occurs: the eastern anchorage, or *Road of Cope*, affords protection from S. W. and West winds, with good depth of water, and a bottom of sand and sea-weeds; on the *point* is a *tower* with two guns. The coast now becomes low again for 3 miles, then higher in the direction of E. N. E. $\frac{1}{2}$ N. (E. $\frac{1}{2}$ N.) for $3\frac{1}{2}$ miles to *Calnegre Point*, and continues so to *Cuebas de Lobo*, beyond which is an open beach, where stands the *Tower of Almazarron*. Here begins a *Bay*, extending eastward full $3\frac{1}{2}$ miles, and northward 1 mile.

the eastern part of it is high, having the *Tower of Subida* upon it, giving name to that part of the *Bay*, sheltering the anchorage there from East, and even S. E. winds. Bring this *Tower* to bear about S. S. E. $\frac{1}{4}$ S. (*South*), distant about a quarter of a mile, and you will ride in 7 fathoms, sandy ground. This is the only good refuge for vessels leaving *Cartagena*, bound eastward, and meeting with East winds; but with W. S. W. or South winds, although in summer they are moderate, yet in winter these will be dangerous, seeing there is no room for casting off, or getting under sail.

ALMAZARRON. The western part, or *Almazarron Bay*, has shelter from the above winds, by running in to the north side of the *Tower*, at about the distance of a cable from it; there making fast to the *rocks*, and getting an anchor out to the eastward, you may ride in 7 fathoms, and be in readiness to sail, with the wind turning easterly.

About N. N. E. $\frac{1}{4}$ E. (*N. E. $\frac{1}{4}$ E.*) from the *Tower*, distant half a mile, lies a *ridge* of rocky ground, over which are 9 fathoms, very injurious to cables; and on the north side of the *Tower* are two *rocks* above water, with foul ground surrounding them; but the *Point*, where the *Tower* stands, is clean. The *town* lies about a league inland, and the water obtained here is brackish.

CAPE TINOSA. From the *Tower of Subida*, S. E. (*S. S. E. $\frac{1}{4}$ E.*) nearly two-thirds of a mile, lies *Cape Subida*; and from thence to *Cape Tinosa*, the coast runs in the same direction for 2 miles, all high, steep, and rocky land. *Cape Tinosa* is in latitude $37^{\circ} 31' 10''$ N., and longitude $1^{\circ} 10' 22''$ W. Beyond *Tinosa* is a *light* running in northerly above 3 miles, the greater part being hilly, except the small beach of *Portus*, which bears nearly N. N. E. $\frac{1}{4}$ E. (*N. E.*) from the *Cape*. Further on is *Roldan Hill*, which forms a *mark* for this part of the coast, and may be seen a considerable distance off at sea. *Palomas*, a small island, lies before it, with foul ground about it. *Torrosa Island* is $3\frac{1}{2}$ miles from *Portus*, and $2\frac{1}{2}$ from *Palomas*. Between them are two *coves*, but, being so near *Cartagena*, these are seldom frequented; and though vessels may anchor there, the shelter is but indifferent. From *Torrosa Island* to the western point of *Cartagena* the distance is 2 miles.

CARTAGENA, or CARTHAGENA, is the *Carthago Nova* of the Romans, and possesses one of the best harbours in Spain; it consists of a basin of great dimensions, reaching close to the town, and naturally secured from all winds. The town lies on a kind of peninsula, has plenty of good water, and an arsenal well stored with every necessary for maritime service. Sail-cloth is manufactured here in large quantities, and alum works are carried on extensively. A few miles west of the town are the hot springs of *Archena*: and at the N. W. corner of the harbour is the *Arsenal*, protected by a battery of 40 guns. The suburb of *St. Lucia* extends down the eastern side, which forms a kind of *bay*, on the southern point of which is a powder magazine: from this to the southward the shores are hilly, so far as the *Florentine Battery*; and near that is *St. Ann's Fort*. The observatory is situated in latitude $37^{\circ} 35' 50''$ N., and in longitude $1^{\circ} 0' 37''$ W. The population is estimated at 30,000, and its principal exports are barilla and wool.

The course and distance from *Cape de Gat* to the entrance of this harbour will be N. E. (*E. N. E. $\frac{1}{4}$ N.*) 25 leagues; and the narrowest part of the channel, which is between the batteries of *Navidad* and *Florentina*, is 680 yards, the depth of the harbour being above a mile. The western point is of moderate height, guarded by the batteries of *Podadera* and *Navidad*; within these is the *Espalmador*, or *Great Careening Place*, being a *Bay*, turning in to the westward, with 3, 4, and 5 fathoms water within it: this is the common place of anchorage for ships of war, being well sheltered, and contiguous to the arsenal. The *City* is at the bottom of the harbour.

When a vessel, bound for *Cartagena Harbour*, approaches from the westward with westerly winds, let her run along shore from *Cape Tinosa*, at half a league's distance, until she is abreast of *Point Podadera*; but if with easterly winds, she should turn to windward, until *Escombrera Island* bears North (*N. N. E. $\frac{1}{4}$ N.*); but do not run too near *Cape Tinosa*, because of the current setting towards *Subida*, and the winds near the *Cape* so frequently dying away.

When a vessel is coming from the eastward, and gets sight of *Cape Palos*, with an easterly wind, having passed the *Hormigas*, she may proceed at a convenient distance from the shore, until the *Island of Escombrera* comes North (*N. N. E. $\frac{1}{4}$ N.*); then passing on its southern side, at about the distance of a cable and a half's length, steer nearly W. S. W. (*West*) until she brings *Fort St. Ann* N. E. by N. or N. E. by compass; she will then clear the *Escombrera Shoal*, which lies about 430 yards W. $\frac{1}{4}$ N. (*W. N. W.*)

from the *Island*. Haul up northward, bringing the head of the vessel to bear on the *Fort Triaca Botijas*; but do not run too near the shore, because it is foul, and the wind generally becomes scanty. You will always be enabled to make over to, or get within, *Point Podadera*, where you can either anchor in 7, 8, or 9 fathoms, or warp further up. With the wind at East, to turn in becomes dangerous, and tedious, especially when your ship is not easily managed. On the eastern side of the entrance to *Cartagena*, about 100 yards West of *St. Ann's Fort*, is a small *shoal*, with 10 feet water; it is steep-to, and there is a passage between it and the main, but no vessel need venture within it. The marks for it are the *Sentry-box* of the *Fort* midway between the north and west angles of the *Fort*, and *Point Trincabotijas* in one with *Point Escombrera*.

Before *Trincabotijas Battery* is a *sunken rock*, about a cable's length out from the shore; and to the southward off *Point Losas*, are two small *shoals*, the furthest out being 150 yards from the *Point*: there are passages between them, but they should never be attempted by a stranger. The marks are the extremity of *Fort Trincabotijas* on with the middle of *St. Ann's Fort*, and *Point el Gate* on with the upper part of three peaks near the south part of the *Bay of Escombrera*; but none of these shoals endanger the entrance to the *Harbour of Cartagena*.

With a westerly wind, being off *Cape Palos*, you must beat up to windward, until you find yourself opposite to the mouth of the *harbour*; then steer northerly for the *Podadera Point*, which you can approach within half a musket-shot; and running along the west shore at that distance, in 7 and 9 fathoms, pass the *Point of Navidad*; you will then have left the *Shoal of Laza*, or the *Port Shoal*, to the starboard. As soon as you are beyond *Navidad N. E. Point*, and have opened *Espalmador Bay*, let your anchor go, in 6 fathoms, muddy ground, and veering out two-thirds cable, carry an anchor to the N. E. with 2 cables, and moor N. E. and S. W.; or having let go your first anchor, make fast to the *Point of the Rocks*, and carry out another anchor to the N. E.; then weigh the first, and remain with it ready to be let go again.

If warping in with scanty winds, first let go an anchor with 2 cables to the N. E., and veering away what may be necessary, carry the warp to the S. W., on which let go another anchor, or fasten to the rocks.

La Laza, or the *Port Shoal*, at the west side of the entrance to the *harbour*, lies N. E. by N. (N. E. $\frac{1}{4}$ E.) from the *Battery*, or *Point of Navidad*, distant 384 yards, having 6 fathoms round it. The marks for this shoal are the N. E. corner of the *Powder Magazine* on with the south corner of the *guard-house*, bearing about E. N. E. (E. $\frac{1}{4}$ N), and the *Tower of the Town-house* in one with the *Torre de Molinete*: these objects, open of each other either way, as most convenient, will clear the *Shoal*.

The *Shoal of Escombrera* is about the size of a ship's boat, having 10 feet water over it, and round it 6 and 7 fathoms; it lies nearly West (W. N. W.) from the *Island*, and its marks are the extremity of *St. Ann's Fort* open of the ruined *Bastion of Negros Battery*, and the north-east part of *Escombrera Island* on with the south *Point* of the little *Cove of Aguilones*, or the southern *Point of Escombrera* on with *Cape Agua*.

If desirous of anchoring within the *Bay*, you must endeavour to gain the middle of the *Harbour's entrance*, steering directly for the *Student's Grotto*; and having passed *Laza Shoal*, leaving it to the larboard, should the wind be from seaward, anchor in 6 fathoms, mooring N. W. and S. E.; but if the wind be from the land, first let go an anchor to the N. W., and another to the S. E.

Men-of-war usually moor in winter-time in the *Espalmador*, safe from both sea and winds: not more than three can swing at their anchors; but ten may lie there, moored head and stern with four anchors; and others in the *Cano*, or *Little Espalmador*, where twelve may lie, and be made fast to each other, two by two.

The *Cano* is the channel leading to the *Docks*, now called the *New Deep*, having 4 and 5 fathoms water within it, but too narrow to turn in; so that, unless going into the *Docks*, a large ship must enter it stern foremost. From this channel a *sand-bank* extends to the eastward along the shore as far as the *Powder Magazine* and *Leander's Battery*, so that many vessels may be moored, with plenty of room to swing along its edge, or even upon the *bank*, in from 4 to $2\frac{1}{2}$ fathoms; but we do not recommend this situation in winter.

In summer, vessels anchor in the middle of the *harbour*, that station being more healthy, from the free circulation of air; and as the winds are then seldom strong, little injury is done to the cables.

Vessels making the harbour in winter, with off-shore winds, should seek the anchorage on the north side of *Escombrera Island*, South (*S. S. W. $\frac{1}{4}$ S.*) of the *Castle*, in 27 fathoms, good holding ground; and they may find anchorage all over the opening of the harbour as far as the *Bay of Escombrera*, getting in preference under the lee of the point, between *Podadera* and *Navidad*.

S. S. E. $\frac{3}{4}$ E. (*S. $\frac{3}{4}$ E.*) from *Fort St. Ann*, distant one quarter of a mile, is *Trincabotijas Battery*, from which the coast runs *S. E. $\frac{1}{4}$ S.* (*S. S. E. $\frac{1}{4}$ S.*) to *Point Losas*, and then *E. S. E. $\frac{3}{4}$ S.* (*S. E. $\frac{1}{4}$ S.*) to *Point el Gate*, the northern entrance to the *Bay of Escombrera*. Do not come too near this part, on account of the rocks before mentioned, for close to them are 10 and 11 fathoms. The above directions will be readily understood by a reference to the Plan on the Chart.

BAY OF ESCOMBRERA. This Bay is to the eastward of *Cartagena*, and capable of containing vessels of every size, sheltered from *N. E.*, *S. E.*, and *N. W.* winds: at its entrance are 14 and 15 fathoms; as you advance, the depth diminishes to 5 and 6 fathoms; in the middle of the Bay the bottom is sandy, with patches of sea-weeds. The Bay runs a mile inward, which is nearly its breadth at the entrance: the common anchorage is under the south shore, in 7 fathoms, or with *Point Parales N. E.* by *E.* (*E. N. E. $\frac{1}{4}$ E.*), the East point of the harbour *N. E.* (*N. E. $\frac{1}{4}$ E.*), and *Point el Gate N. W.* (*N. N. W. $\frac{1}{4}$ W.*), mooring with the small bower *N. E.* The land is high all the way from the south point of *Escombrera Island* toward *Cape Agua*, a distance of about 3 miles *E. S. E. $\frac{3}{4}$ E.* (*S. E. by E.*), that Cape appearing with three peaks. Four miles further is the *Port of Porman*, where vessels may ride on a sandy bottom in 7 and 8 fathoms, somewhat nearer to the western side, but open to the *S. E.* winds. *S. W.* winds generally occasion a heavy sea, the force of which is, however, broken by the west point of the Bay. On the eastern point is a tower, near which is a rock even with the surface of the water. Between this rock and the point are $4\frac{1}{2}$ fathoms, but on its outer side 11 fathoms, coarse sand. Few vessels visit this place except in summer. Water may be obtained, but with considerable difficulty, from a spring at the north part of the Bay, one-third of a mile from the beach.

From *Port Porman* the coast continues high toward a black point of land, called on that account *Cape Negrette*, from whence the shore sinks down to *Cape Palos*. There are two sharp-topped hills in this space, and some low spots of beach, but no place of anchorage, except for small craft at *Cala del Cargador*, which may easily be known by some white patches of land about it; the shore is foul for $3\frac{1}{2}$ miles before you reach the Cape.

At *Cape Palos* the currents set to the *S.* eastward, and become more rapid as you get from land. The coast from thence to *Cartagena* is without danger, and you may sail along within half-a-mile of the land. *S. W.* winds commonly blow throughout the summer, and are very regular at the *Port of Cartagena* from 10 o'clock till sun-set, and in winter throughout the night.

CAPE PALOS, in latitude $37^{\circ} 37' 15''$ N. and longitude $0^{\circ} 42' 22''$ W., is low, with a square tower upon it. Nearly *N. E.* by *E. $\frac{1}{4}$ E.* (*E. by N.*) from this tower lies a small flat Island, called *Hormigas*, and within it is another, the latter being a bare rock. They are connected by a reef, and there is no passage fit for a vessel to sail through; but between them and the Cape is a good Channel, with from 5 to 8 fathoms. In sailing through, you should borrow near the Cape, on account of a rocky shoal, lying about half-a-mile from the *Lesser Hormigas*: the marks for it are the *Tower of Estacio* in one with a little hummock on the eastern part of *Cabezo Gordo*, and *Cape Palos Tower* in one with a red precipice lying to the westward. There is also another shoal bearing from the *Great Hormigas N. E. $\frac{3}{4}$ E.* (*E. N. E. $\frac{1}{4}$ E.*), distant half-a-mile; the marks being the two *Hormigas* in one, and *Palos Tower* open of the great *Junco Hill*, which may be known by its white colour. Vessels have been known to pass between the shoal and the *Great Hormigas*; but such passage is not to be recommended. Both these shoals have a white appearance under the water.

To the northward of *Cape Palos* is a long line of low land, called *La Manga*, behind which is an extensive Lake, the *Mar Menor*, or *Little Sea*, containing several islets of considerable elevation. There is a small roadstead, sheltered round by the Cape from southerly winds, but otherwise very dangerous. Fresh water may be procured by sinking pits on the shore any where. *N. $\frac{1}{4}$ W.* (*N. by E.*) from the Point of *Cape Palos*, distant $6\frac{1}{2}$ miles, lies the *Island Grossa*, high, shaped like a haycock, and somewhat triangular, and being $1\frac{1}{2}$ mile from the *Manga Shore*; the Channel between affords anchorage with $4\frac{1}{2}$ fathoms water, defended by the *Island* from *Levant* winds, but it is only fitted for vessels of the smaller kind. *N. E.* by *E.* (*E. by N. $\frac{1}{4}$ N.*),

about 640 yards from *Grossa Island*, is a *Farillon*, or *small rocky islet*; and further off, N. E. $\frac{1}{2}$ E. (*E. N. E.*), is a *sunken rock*, with only 1 fathom water over it. Inside of the *Island*, upon a projecting point of land, stands the *Tower of Estacio*, forming a small bight, where coasters repair for shelter from north winds. This *Point* has several *rocks* running out from it. Vessels from the northward, inclined to seek the anchorage here, should pass outside the *Island*, and when abreast of *Estacio Tower*, bring the *Farillon* in one with a white *hillock* on shore; then stand away eastward, to avoid the *One Fathom Rock*, until the *hillock* comes open of the *Farillon*; then steer S. $\frac{1}{2}$ W. (*S. S. W.*), and when the *Farillon* comes in one with the north part of the *Island Grossa*, steer for it, and run along its southern side at the distance of a cable and a half, anchoring to the westward of it.

But if desirous of passing between *Estacio Tower* and *Grossa*, get abreast of the *Tower*, and bring the west part of the *Island* in one with the *hillock*, standing on until you are within a cable and a half's length of the *Island*, in 4 fathoms; then run down westward, and anchor: but this should not be resorted to, unless in cases of necessity.

N. W. by N. (*N. by W. $\frac{1}{2}$ W.*), $2\frac{1}{2}$ miles from *Estacio Tower*, is the *Torre de la Encanizada*, situated near the entrance of the *Mar Menor*, which is shallow, and fit only for boats. About $4\frac{1}{2}$ miles from *Encanizada* is the small *Tower of Heradura*, where the land becomes high again. About N. E. $\frac{1}{2}$ N. (*N. E. by E.*), distant $3\frac{1}{2}$ miles, is *Cape Roche*, known by its red appearance, being higher than the other part of the coast, and having a *Tower* upon it. From thence the land runs N. easterly toward a sandy beach, where are the *Salterns of Torre Vieja*. Here vessels resort to take in salt; but the water is so shallow, that they ride at the distance of half a mile from the shore, over a bottom of sea-weed, and in a depth of $3\frac{1}{2}$ or 4 fathoms. *Torre Vieja* stands at the further end of the *Plain*, about $5\frac{1}{2}$ miles from *Cape Roche*. The shore now projects a little way, and then rounds to *Cape Cervera*.

CAPE CERVERA is in latitude $37^{\circ} 58' 55''$ N., and in longitude $0^{\circ} 41' 27''$ W. From *Torre Vieja* to *Cape Cervera* the shore is moderately high. Here is a round *Tower*; having passed which, a sandy flat commences, and continues almost as far as *Santa Pola*, or *Cape St. Paul*. Within this space is the *Tower of Mata*, distant $1\frac{1}{2}$ mile from *Cape Cervera*; the little *Town of Guardamar*, lying on the south side of the *River Segura*, situated at the foot of a hill, and surmounted by a fortification; the *Tower of Pinet*, 2 miles beyond the *River*; and the *Town of Lugar-nuevo*, with the *Castle of Santa Pola* near it, standing $12\frac{1}{2}$ miles from *Cape Cervera*, from which it bears N. N. E. $\frac{1}{2}$ E. (*N. E. $\frac{1}{2}$ E.*). The *Castle of Santa Pola* is a square building, situate on a plain by the sea, and distant about 9 miles from *Guardamar*; and from *Guardamar* to *Santa Pola* the road is good for anchorage, with winds from E. N. E. round southward to S. S. W., in from 4 to 9 fathoms: the outer anchorages are sandy ground; the inner ones partly sea-weeds. The common place of riding is with the *Castle of Santa Pola* N. E. $\frac{1}{2}$ N. (*N. E. by E.*), distant 1 mile from the shore. Here vessels moor N. W. and S. E., with the longest cable in the latter direction: men-of-war anchor further out, in 8 or 9 fathoms. When lying in this road, you will see a ridge of hills inland, W. by S. (*W. by N. $\frac{1}{2}$ W.*), called the *Sierra de Callosa*, of dark appearance, and moderate height.

SANTA POLA. To the eastward of this anchorage is *Cape Santa Pola*, on the high land near which is the *Tower of Escaleta*. *Cape Santa Pola*, in latitude $38^{\circ} 12' 5''$ N., and longitude $0^{\circ} 31' 42''$ W., includes the space from *Escaleta Tower* to *Point Algibe*, where stands the *Tower of Talayola*, and appears, when viewed from the north or southward, as a flat point, gradually sloping upward, with a reddish colour; but from the eastward the high land is conspicuous, and the lower parts not visible. The outer part of the *Point* is surrounded with a *sandbank*, over which are only 13 feet water; this is the only danger.

THE ISLAND PLANA. There is a small *Island* lies off the *Cape*, distant about 2 miles, called *Plana*, or *Nueva Tabarca*, having a *Mole* and *Harbour*, with several *Coves* in its western part. Here stands the *Castle of St. Paul*, in latitude $38^{\circ} 10' 10''$ N. The island is altogether low and level. A little way off the southern part of the *Island* are some heads of *rocks* above water; and at the distance of a cable and a half from the outer or eastern point is the little islet called *La Piedra de Fuera*, the outer rock, or *La Nave*, the ship. Between it and the *Island* is a passage only for boats. Two cables' length from this is a ledge under water, and further out a very dangerous rocky shoal, with $2\frac{1}{2}$ fathoms over it; the sea-marks for which are the North Corner of the *Nave Rock*, between the *Towers* of the *Church of Tabarca* and the Peak of *La*

Matas, in one with the *Peak* of the *Mountain del Hombre*, which stands to the north-eastward of *Alicante*. Vessels will have $6\frac{1}{2}$, 5, and $4\frac{1}{2}$ fathoms, sea-weed and gravel, between these rocks; but with a large vessel it will always be highly imprudent to attempt this passage; for though the bottom may be visible all the way through it, yet it becomes too difficult, guided by the eye alone, to track out and follow the deepest water. The *Tower* on *Cape de la Huertas* in a line with the highest *Peak* of *Monte del Hombre*, bearing N. $\frac{1}{2}$ E. (N. N. E.), will lead clear to the eastward of the outer shoal.

From the *Point* of *Cape Santa Pola* to the *Tower* of *Algibe* the distance is $2\frac{1}{2}$ miles, high land; and from thence toward *Alicante*, the shore is low and sandy. About half a league from *Cape Algibe* is the *Castle* of *Calabazina*, and further on that of *Agua Amarga*, from which there are but 3 miles to the *Pier* of *Alicante*.

ALICANTE. The *Castle* of *Alicante* is in latitude $38^{\circ} 20' 41''$ N., and longitude $0^{\circ} 29' 57''$ W. The town is of moderate dimensions, and has by computation 17 or 18,000 inhabitants: it is built at the foot of a rocky mountain, on the summit of which stands the *Castle*, well fortified, and commanding the town. There is a *pier*, but the water is too shallow for any but small craft to approach it; large vessels are compelled to anchor further out in about 7 fathoms water. The trade here is very considerable, and the exports chiefly consist of soap, wine, wool, silk, fruit, salt, capers, barilla, dates, aniseed, alum, saffron, vermilion, &c.

The *Road* of *Alicante* is bounded by *Capes Santa Pola* and *de la Huertas*, and open to all winds from E. N. E. to S. by W.; but as the ground, sand and sea-weeds, holds well, vessels may ride with S. E. and S. W. winds, provided there is only a moderate swell of the sea. With winds from the N. W. and N. E. quarters, they are sheltered by the inland mountains; mooring N. E., with the small bower S. W., 1 mile from the shore, in from 11 to $5\frac{1}{2}$ fathoms, or further in with 3 or 2 fathoms, bringing *Santa Barbara Castle* N. by E., or N. by compass: the *Gate* of the *Mole* will then be in sight. About midway between *Santa Pola* and *Cape de la Huertas* are 14 fathoms water; but the depth decreases toward either of the *Capes*, as well as toward the shore. Observe, when standing toward *Agua Amarga Tower*, to put about at a full cable's length from the land, for it is there sandy and steep; and when standing off again to the southward, beware of the coast, which is rocky. You may know your approach to *Alicante* by four hills: the *Cuchillada de Roldan*, from which *Alicante Castle* bears S. W. $\frac{1}{2}$ S. (W. S. W. $\frac{1}{2}$ S.); from the *Peak* of the *Sierra del Hombre* S. S. W. $\frac{1}{2}$ S. (S. W. $\frac{1}{2}$ S.); from *Sierra Gijona* S. S. E. $\frac{1}{2}$ S. (S. $\frac{1}{2}$ W.); and from *Sierra de la Escala* S. E. by E. (S. E. $\frac{1}{2}$ S.)

CAPE DE LA HUERTAS runs down low and flat toward the sea, but rises up inland, with a white rocky appearance: near it stands the *Tower* of *Alcora*. A reef of rocks runs out from the *Cape* nearly E. $\frac{1}{2}$ S. (E. S. E.), two cables' length, and a little further out are $5\frac{1}{2}$ fathoms water. The coast now runs in a circular direction 14 miles to *Villajoyoso*, in which space are the *Towers* of *Isleta*, *Agua*, and *Charco*, but these afford neither shelter nor anchorage. At *Villajoyoso* small vessels sometimes lie in N. W. and N. E. winds, the ground holding well, but too open to be recommended.

BENIDORME. E. N. E. $\frac{1}{2}$ E. (E. $\frac{1}{2}$ S.) from *Villajoyoso* is the *Tower* of *Guibou*; and further on, the *Town* of *Benidorme*, situated on a rock: between them is a sandy bight, where vessels may ride in safety, sheltered from all winds, from the east round by north to west. The anchorage is to the south of the *Town*, in 14 and 15 fathoms; you will then be about 2 cables' length from the *Rock* of *Benidorme*, and may, should the wind turn round to S. westward, be able to clear the east point of the *Bay*. Small craft anchor on the west side of the *Town Cliff*, with a cable on shore, and an anchor to the S. W. Fresh water may be readily obtained in several places; but the South winds, which prevail here, render this place unsafe, particularly in winter. On the East point of the *Bay* stands the *Tower* of *Escaleta*, which is clear of danger, and may be approached with safety.

There is the small *Island* of *Benidorme*, lying 2 miles S. $\frac{1}{2}$ E. (S. by W. $\frac{1}{2}$ W.) from *Benidorme*, and S. S. E. $\frac{1}{2}$ E. (S. by E.) from the *Cuchillada de Roldan*, clear all round, with 11 fathoms, within half a mile of its edge, except at its southern end, where, at the distance of a cable's length, is a small rock of a whitish colour, with $3\frac{1}{2}$ fathoms over it, while round it are 14 and 16 fathoms. The marks are the *Cuchillada de Roldan* in one with the South point of the *Island*, and the highest part of a small *Island*, which lies under the *Rocks* of *Arabi*, in a line with the highest point of *Mount Calpe*.

From *Escaleta Tower* the shores continue north-easterly, projecting a little to the

East, and having a small *Island* near the land. This *Island of Arabi* has already been mentioned. Further on is the *Tower of Bombarda*, standing on the south point of the *Bay of Altea*.

THE BAY OF ALTEA lies nearly N. by E. and S. by W. (*N. N. E. $\frac{1}{2}$ E.* and *S. S. W. $\frac{1}{2}$ W.*), where vessels will be sheltered from north winds, round by the westward, to the S. W. The best anchorage is S. E. (*S. S. E. $\frac{1}{2}$ E.*) from the *Town*, in 12 fathoms, mud and sand, three-quarters of a mile off-shore; further in it is rocky. The *Town* is built upon a rising ground, and guarded by a fortification. Beyond the *Town* is a small river, the shore continuing low as far as *Cape Negrete*, where stands a *Tower*: it then becomes higher. Here small vessels sometimes anchor; but the ground is foul and rocky, although further to seaward you will find a bottom of sand and mud: there is plenty of good fresh water to be obtained on the beach. About 2 leagues to the westward of the *Town of Altea* there is a high mountain, called *La Cu Chillada de Roldan*; and this is the land you will first get sight of when coming from the sea. Two small *Islands* lie hereabout, the outermost bearing N. N. E. (*N. E. $\frac{1}{2}$ N.*) from the *Tower*, distant a little more than half a mile.

BAY OF CALPE. Two miles East (*E. S. E. $\frac{1}{2}$ E.*) from *Cape Negrete* is *Point de Fox*, the western point of the *Bay of Calpe*; between these are the *Towers of Galera* and *Mascarut*. The east end of the *Bay of Calpe* is formed by a rocky ridge, called by some *Mount Ifak*, but by seamen the *Pennon* or *Great Rock of Calpe*: it is distant from the western, or *Point Fox*, $2\frac{1}{2}$ miles. Within this *Bay* is shelter from easterly winds, in summer-time only, under the *Hill*, or $2\frac{1}{2}$ cables' length from the shore, about S. E. (*S. S. E. $\frac{1}{2}$ E.*) of the *Town*, in $6\frac{1}{2}$ fathoms; but the first of these places is the most convenient for getting under weigh, should S. W. winds come on. There is also anchorage east of the *Hill*, with shelter from the W. and S. W. in 16 fathoms water, sand and mud, taking care to be so placed, that you may be able to clear the *Point of Ifak*, should the wind turn round to the East or S. E. Near the land is a rocky reef, having an opening to the southward, with 2 fathoms water; and within them the small *Haven of Fosa*, with 3 fathoms, sandy ground, convenient for small vessels, and well-sheltered; but these places are little frequented, and without any good water. Three-quarters of a mile from *La Fosa* is the *Cove of Las Pasetas*. The land then forms a *Bay*, ending at *Cape Blanco*: this is called *Abmoreyra Bay*, and forms an anchorage for vessels of all sorts, with winds from the West, round by North to East. In the middle of this *Bay*, S. W. of the *Fort*, you will have 9 fathoms, sand and weeds; toward the east corner is a bottom of clean sand; but the greater part of the shore is rocky, with very little beach: by making fast a cable on shore eastward, and having an anchor to the west, you will be defended from the swell of the sea, and be ready to get under weigh, when requisite. The *Town of Tulaya* is about 3 miles distant from the *Fort*, and the eastern point of the *Bay* is called *Cape Moreyra*, or *Moraira*: it is very high, with a watch-tower on its summit: round the *Cape* the water is deep, and clear from danger. The shores continue high for 5 miles beyond this *Cape*. E. $\frac{1}{2}$ N. (*E. N. E.*) from it is a small *Cove*, and further on an *Island*. Lying near the *Castle of Granadilla* inland is the *Mountain of Isabella*. At *Granadilla* is a small beach, frequented by small vessels with off-shore winds.

CAPE NAO. Further to the eastward is *Cape de la Nao*, the most easterly land of this coast, which continues lofty $2\frac{1}{2}$ miles to *Cape St. Martin*, this latter *Cape* being somewhat lower, and distinguished by a little peak at its extremity. *Cape Nao* is in latitude $38^{\circ} 44' 40''$ N., and longitude $0^{\circ} 10' 8''$ E. To the southward of it is a small island close to the shore, where the ground is foul and rocky; but to the eastward of that, and also of the *Cape*, there is deep water, and no danger. Having passed this *Cape*, you will open the *Bay of Xavia*; bounded to the northward by *Cape St. Antonio*, and known by the windmills on its summit.

CAPE ANTONIO is in latitude $38^{\circ} 49' 50''$ N., and longitude $0^{\circ} 8' 8''$ E. This *Cape* is high, steep, and rises almost perpendicularly out of the sea. The *Bay of Xavia* is sheltered from South, S. W., West, and N. W. winds. Vessels generally anchor in the northern part of the *Bay*, near *St. George's Tower*, in the *Rincon*, a place free from rocks; but if they require a shelter from westerly winds, they run on to within a mile of the *Tower*, bringing that to bear W. N. W. nearly (*West*), and come to in 12 fathoms, sandy ground; then the *Tower* and *Chapel* on *Cape St. Antonio* will be N. N. W. $\frac{1}{2}$ W. (*N. $\frac{1}{2}$ W.*). Small ships, desirous only of shelter from the north, anchor in any part of the *Bay* in 6 or 7 fathoms, 2 cables' length from the shore, on a bottom of sea-weeds and sand. The *Town of Xavia* is about a mile W. S. W.

(W. $\frac{1}{2}$ S.) from *St. George's Tower*, and to the southward of that Tower is *Fort La Fontana*, and a watch-tower on the summit of the *Cape*. Water may be obtained at the plain between *La Fontana* and the *Town of Xavia*.

WINDS. Vessels from the westward frequently experience a change of wind on their arrival at the environs of *Cape Antonio*. When, therefore, this happens, the *Bay of Xavia* is a convenient place to resort to, where, by the assistance of the morning land-breeze, they may get round the *Cape*, and toward the *Gulf of Valencia*, the *Cape* being every where clean, with deep water all round it. From *Cape St. Antonio* a range of hills runs westward to *Mongon Hill*, which is shaped pyramidally, very high, and is the first land you will perceive in coming from seaward, appearing much like a detached island. This mountain bears (by compass) from *Mount Calpe* N. E. by N. nearly; the *Tower of Almoreyra* N. by E.; *Cape La Nao* N. N. W. $\frac{1}{2}$ W.; the most projecting part of *Cape St. Martin* N. W. $\frac{1}{2}$ W.; and from *Cape Antonio* W. $\frac{3}{4}$ N.

REMARKS. The common regularity in the variation of the westerly winds from *Cape St. Antonio* to *Gibraltar* during the summer months, and frequently in the winter, being often 4, 5, and even 6 points in 24 hours, some advantage may be taken of the change by vessels going westward; for it appears that the wind blowing nearly parallel to the coasts, will, in the course of the day, veer one, two, and often three points more toward the land, while by night it will equally turn from it, especially when the weather is moderate. The mariner will therefore be enabled to get near the shore before sunset, making short tacks until morning, when, the wind drawing off the land, he can steer out again as circumstances may require. This will be found highly advantageous when he gets so far as *Cape de Gat*, as there the eastern current will be more perceptible. West of *Malaga*, short tacks will keep a vessel out of the effects of the current; and when near *Gibraltar*, she may anchor at the back of the *Rock*, or work into the *Bay*, as may be most convenient, and according to the directions already given in page 8.

3. FROM CAPE ANTONIO TO CAPE DE CREUX.

The land from *Cape Antonio* runs north-westward $2\frac{1}{2}$ miles, and continues high to *El Sarda*, where it terminates in a low point; before you come to which is the *Tower of Aqua Dulce*. From *Sarda Point* the land makes a kind of Bay toward *Denia*, where a harbour is formed by two banks of mud: that on the N. W. has 2, 3, and 4 feet upon it; that on the S. E., from 2 to 11 feet. Outside of these are two other banks: the northern one, or *El Caballo*, has 12 feet over it; the other, called *Ladróna*, about 16 feet: between them are from 55 to 22 feet. Between *El Caballo* and the entrance of the *Port* are from 11 to 18 feet, and between the *Ladróna* and the S. E. bank are from 11 to 21 feet.

If a vessel is desirous of going into the *Harbour of Denia*, let the *Point of Sarda* be brought in one with *Cape Antonio*, and the little fort on the beach in a line with a reddish part of the mountain to the S. W. (W. S. Westward) of it; keep them so until the *Ruins of Escarros Tower* come in one with the *Hollow of La Caldera*: this direction must be continued till *St. Francis Tower* is in one with the great *Church*; you will then have passed the 11 feet rock, leaving it to the larboard, and may anchor. The channel has from 22 to 16 feet water, and from hence to the *Town* from 9 to 5 feet. In the centre of the *Town* appears an old castle.

From *Denia* the shore is low and sandy; 3 miles off stands the *Tower of Almadra*, and 6 miles further the little *Town of Oliva*, lying $1\frac{1}{2}$ mile inland. N. W. (N. N. W. $\frac{1}{2}$ W.) from hence, $3\frac{1}{2}$ miles, is the *Town of Gandia*, built on the edge of a river, $1\frac{1}{2}$ mile from the sea-shore: the whole of this coast is open, rocky, and low, affording no shelter, except with off-shore winds; and the ground off *Gandia* is foul so far out as the depth of 16 fathoms. Between *Oliva* and *Gandia* stands the round Watch-tower of *Pilas*. Beyond *Gandia*, about 4 miles, is *Xarac Tower*, and further on the *Tower of Ball*; from thence, distant 2 miles, is the *Mouth of the River Xucar*, having a *Bar* before it, and but shallow water: it is much frequented by barks, which load with rice.

CULLERA. On the northern bank of this river, about half a mile from the sea, stands the *Town of Cullera*, at the declivity of a ridge of mountains, which terminate at *Cape Cullera*. Between the *River* and *Cape* is a rock under water, lying near the shore, and near the *Cape* a small Island; this Island and shore are encompassed with sandbanks, over which the sea with N. E. and S. E. winds commonly breaks. The shore all the way from *Denia* to *Cape Cullera* is low and sandy; but the *Cape* itself is

elevated, and has a *Tower* on its summit. This *Tower* is in latitude $39^{\circ} 9'$, and longitude $0^{\circ} 11' 17''$ W.

BAY OF VALENCIA. Beyond *Cape Cullera* a sandy flat again commences, running N. N. W. ($N. \frac{1}{2} W.$) toward *Valencia*, and forming the *Bay* of that name. Within this space are the *Watch-towers* of *Casa del Rey* and *Torre Nueva*, and behind them the *Lake of Albufera*: the shore is all low and shallow, and with winds from the north-east, round by East to S. E., it is very hazardous.

THE CITY OF VALENCIA is situated about 2 miles from the sea, in an open plain, and on the banks of the *River Guadalaviar*; it was formerly a place of considerable strength, but its Citadel is small and ill-fortified, so that at present it does not even command the Town. Its streets are narrow, and crossed by a multiplicity of lanes, many of which are without a thoroughfare. There are many churches, convents, and hospitals, and few towns contain a greater number of public buildings; but these are by no means characterized by their elegance. They have an academy for painting, two public libraries, a silk manufactory, and others for leather, woollens, cordage, and lace; but these are all upon a small scale. The maritime commerce of the place is carried on by lighters, which load and unload vessels at the village or town of *Grao*. The population is estimated at above 100,000.

With the winds at East, a vessel cannot get from the *Grao of Valencia* out to sea; but having parted from her cables, and running for the shore, will find, about a furlong off, a sandbank extending outwards nearly 300 yards, with only 6 feet water, the sea breaking over it; this frequently proves the destruction of both crew and boats: besides this, a great part of the bottom is rocky. Those vessels which anchor here will observe that, to the northward of the *Grao of Valencia*, some fishermen's houses stand on the beach, having a Church distinguishable by its steeple; and in the *City of Valencia*, the *Tower of the Cathedral*, which may be seen above the other buildings: bring these two steeples in a line, and at the distance of half a mile from the beach are the *Barretta Rocks*, running northerly full $1\frac{1}{2}$ mile; these in anchoring must be avoided. To ride safe of these and other rocks to the southward, it is recommended to bring the *Tower of the Cathedral* a little open to the South of the *Steeple on the Beach*; and when you are in $5\frac{1}{2}$ fathoms, hard muddy ground, let go your anchor. Somewhat in contradiction of the above, a modern Surveyor has drawn a line from *Cape Cullera* to *Oropesa*, running along the land at the distance of 4 or 5 miles from the shore, within which he asserts the anchor holds well.

MURVIEDO. From the *Grao of Valencia*, the low, flat, and open *Beach* continues in a north-easterly direction, about 11 miles, or to the *Grao of Murviedo*. The *Tower of Pucha* stands between; there is also a small *Tower* at the *Grao of Murviedo*; this *Roadstead*, however, is rocky and unsafe. *Murviedo Town* lies 3 miles inland. From hence the coast stretches N. E. by N. (nearly N. E. by E.) to *Cape Canet*, a distance of 4 miles; upon this *Cape* is a *Tower*; the point is low and flat. The land now turns N. N. E. $\frac{1}{2}$ E. and N. E. $\frac{1}{2}$ E. towards *Cape Oropesa*. You will pass several *Towers*, and the *Villages* or *Towns* of *Chilches*, *Villa Real*, and *Castellon de la Plana*; these are all inland, and the latter is built on the side of a river, its buildings being very visible as you sail along, particularly a large white one, which serves as a mark for the coast.

Cape Oropesa Tower is in latitude $40^{\circ} 5' 33''$ N., and longitude $0^{\circ} 6' 58''$ E. From *Murviedo* to the *Cape* there is neither *Bay* nor place of safety for vessels all the way, and the only high land is *Cape Oropesa*, which has a dark appearance, running out a good way, and forming a flat point to seaward. Two *Towers* are erected upon this *Cape*: the southern one is called *St. Julian*, the other *Venicasi*. There is a kind of *little Cove* here, fit for sheltering coasters from N. E., North, and round to W. S. W. winds; but should it come on to blow fresh on shore, the mariners here, as well as all along the *Gulf of Valencia*, moor their vessels as well as they can, and take their boats ashore.

East nearly (E. S. E.), from *Venicasi Tower*, distant 6 miles, is a *Shoal*, running E. and W., with only 2 fathoms over it: this is called *La Olla de Venicasi*. There is a passage between it and the shore, with $2\frac{1}{2}$ fathoms water. Bring *Cape Oropesa* in one with the *Tower* east of *Venicasi*; steer on towards the *Town*; and standing in until this bearing is hid, you will anchor in 3 and $4\frac{1}{2}$ fathoms, sand and sea-weed.

Another *Shoal* lies to the southward of the *Cape* one mile.

COLUMBRETES. There is a cluster of small rocky *Islands*, called the *Columbretes*, fourteen in number, the largest of which lies 29 miles E. S. E. $\frac{1}{2}$ E. (S. E. $\frac{1}{2}$ E.) from *Cape Oropesa*, and has a kind of *Bay* on its north-eastern side, where small

vessels sometimes resort. S. S. E. (S.) of the largest *Island*, the *points of the rocks* appear above water for the space of 2 miles; and one of them has at a distance the appearance of a ship under sail. These rocks are in latitude $39^{\circ} 56' N.$, and longitude $0^{\circ} 42' 58'' E.$

From *Oropesa* to the N. eastward the shore is sandy and low; 6 miles off is the *Torre de la Sal*; nearly 4 miles from that is the *Torre Blanca*; further on is *Torre Cabicor*; and 3 full miles beyond that, *Torre Nueva*. The *Town of Blanca* lies a league inland, N. W. by W. (N. W. $\frac{1}{4}$ N.) from the *Tower* of the same name. The land at that distance from the shore begins to rise up to a moderate height, the hills terminating near *Torre Nueva*: there the shore becomes elevated, and runs N. E. (E. N. E. $\frac{1}{4}$ N.) toward the *Town of Peniscola*: midway between are the *Point* and *Tower of Abadan*.

Peniscola Town and *Fort* are built upon a large rock, on the summit of which you will first perceive a large square building: this rock has the appearance of an *Island* when seen at a distance, on account of some low land adjoining, which connects it with the *Main*. The *Roadstead* is open to the N. E., East, and South winds, and only affords shelter from the West and N. W. in good weather; then vessels of every kind may ride there: the best place is to the eastward of the *Town*, about $3\frac{1}{2}$ cables' length off, in 6 fathoms, fine sandy ground. From thence you can readily get away to the southward, if easterly winds come on; but should the wind be S. E., you must not stand N. E. to get off the shore, for by so doing, you will not be able to clear *Cape Tortosa*: unless, therefore, you can carry a press of sail, it will be more advisable to remain at anchor, and ride out the gale.

Small vessels may bring-to N. N. E. (N. E. $\frac{1}{4}$ N.) of the *Town*, in $3\frac{1}{2}$ fathoms, with south-westers, but should beware of easterly winds. Good water may be obtained from a spring close to the walls of the *west bastion*. A flat sandy shore now commences, running N. E. easterly, $3\frac{1}{2}$ miles, to the *Town of Venicarlo*; 3 miles from which, in nearly the same direction, is *Vinaros*, and further on the *Rivulet of Senia*, where stands a small watch-tower, called *Sol de Rio*. Here the land rises, and at $1\frac{1}{2}$ mile distance from the river is a small beach, used by coasters; a few houses stand on the shore, and the *Tower of Casas del Cano*. N. E. $\frac{1}{4}$ E. (N. E. by E.) from this *Tower*, $4\frac{1}{2}$ miles, is the *Town of St. Carlos*, or *Rapita*.

The PORT or HAVEN of the ALFAQUES, called also *Le Sofa Bay*, runs in N. easterly, $5\frac{1}{2}$ miles; the shores are low, and marshy. Within it, on the larboard shore, is the small *Fort of St. John*; beyond which the coast bends inward, forming an inner haven, but with very shallow water. Good shelter will be found at this place for vessels of moderate size, in 3 and 4 fathoms; but to the eastward of the *Fort* there is less water; the bottom is every where mud, and you should moor N. W. and S. E., with two anchors out. In entering, endeavour to keep mid-channel, by which you will clear the eastern point, or *Palma Marina*, from which a bank extends half a mile: run on toward the centre of the *Bay*, and anchor with the *Fort* bearing N. E. $\frac{1}{4}$ E. (E. N. E. $\frac{1}{2}$ E.); but if your vessel is small, you may go still further in.

When coming from the eastward at night, and bound to the *Alfaques of Tortosa*, beware of approaching the coast to the southward, which, as already described, is low and shallow: endeavour to get sight of the *Mountains of Monsia*, the summit of which bears W. $\frac{1}{4}$ S. (W. by N.) from *La Rapita*: stand not to the northward of the point you were steering, until you get *Monsia* to bear N. W. by N., or N. N. W. $\frac{1}{4}$ N. (N. by W. $\frac{1}{4}$ W. or North); you may then bring-to before the haven, in $4\frac{1}{2}$ or 5 fathoms, and wait for daylight. There is a small round hill between *Monsia* and *La Rapita*, with a tower upon it, called *Gardiola*, which serves to point out this part of the coast. From the *Sierra of Monsia* the *Point de la Bana* lies nearly E. S. E. $\frac{1}{4}$ E. (S. E. $\frac{1}{4}$ E.), distant $8\frac{1}{2}$ miles. This being observed by the mariner, may serve to guide him in his approach; but the bearing of the *Monsia Mountain*, as given above, will be the best mark for turning northward. Men-of-war wishing to obtain shelter from easterly winds, should not advance further than $5\frac{1}{2}$ or 6 fathoms, abreast of *Point del Cano*, and nearly midway between the shores, always giving a berth to the southern land.

North-westerly winds blow violently into this Haven, and will frequently occasion your anchors to drag. Neither wood nor water can be obtained here.

From *Point del Cano* the shore rounds to the southward a little, and then stretches easterly to *Point de la Bana*; from thence the low land runs along to the *River Ebro*, which is only navigable by small vessels. The entrance is divided into two channels by

Buda Island, which is, like the rest of the coast, flat and low. The most prominent part of this *Island* is called *Cape Tortosa*, in latitude $40^{\circ} 43' 25''$ N. and longitude $0^{\circ} 55' 28''$ E. A city of that name stands upon the banks of the *Ebro*, but far inland. There is also a village called *Amposta*, on its southern side, from which a new canal has been opened to *Rapita*. *Rapita* is in latitude $40^{\circ} 36' 30''$ N., and longitude $0^{\circ} 37' 35''$ E. To the S. westward of it is the *Tower of Codonnet*, with 2 guns.

RIVER EBRO. From *Cape Tortosa*, nearly N. W. (*N. N. W.*), distant 2 leagues, is *Port Fangal*; all low land, formed by the sand and mud which have been disembogued by the *River Ebro*. The *Points* of this *Port* or *Bay* are 3 miles apart, and lie about N. W. (*N. N. W. $\frac{1}{4}$ W.*), and S. E. (*S. S. E. $\frac{1}{4}$ E.*) from each other. North-west winds are particularly troublesome, frequently blowing in with great violence; at the southern part a sandy point shelters vessels from an easterly wind, but the water is shallow and narrow: at its entrance are 16 feet, and further on only 5, therefore unfit for shipping of any considerable draught of water. This place is wholly undefended and uninhabited; the land that forms the *Bay* is shifting sand and mud, low, and filled with marshes and pools.

At its northern part is the *Bay of Ampulla*, open and unsheltered, having 4, 5, and 6 fathoms within it. On a point at the N. W. (*N. N. W. $\frac{1}{4}$ W.*) is the *Tower of Cape Raig*; and at its eastern side a well of brackish water, which generally supplies vessels which run into *Port Fangal*.

Although these *Ports of La Sofa* and *Fangal* are generally called by seamen *Alfaques*; yet, properly speaking, the *Alfaques* comprehend all the low marshy land which extends from *Rapita* to *Ampulla*, in the middle of which the *River Ebro* discharges its streams into the sea. And although the mariner should not, in bad weather, venture within 2 leagues of it, keeping the lead going constantly, on account of the lowness of the land, the shifting of its sands, and the currents which set into the *Ebro*, yet when the weather is fair, no danger is to be apprehended; for there is a regular bottom of sand and mud stretching from half a mile to a mile out, where you may run along in from $3\frac{1}{2}$ to $5\frac{1}{2}$ fathoms.

From *Cape Raig Tower* the shore continues N. E. (*about E. N. E.*), being level, of moderate height, and with several inflexions, to the *Tower of Aguila*; 3 miles from which is *Fort de la Merla*, and about $1\frac{1}{2}$ mile further the *Fort of St. George*. The coast from hence is low, but rises up inland, having some spots of open beach, but no anchorage. N. N. E. $\frac{1}{4}$ E. (*N. E. $\frac{1}{4}$ E.*), nearly 7 miles from the *Fort of St. George*, stands the *Castle* or *Fort del Coll de Balagur*: the shore between is elevated, but beyond the *Castle* it sinks down low and open again, running N. easterly towards the *Tower of Penales*; within this latter space is a small river, called *Hospitalet*. Two full miles from *Penales* is the *Tower of Milamar*; the low land then bends circularly $3\frac{1}{2}$ miles to the *Town of Cambrils*, and further on to the *Road of Salou*.

Cape Salo, or *Salou*, is in latitude $41^{\circ} 4' 45''$ N., and longitude $1^{\circ} 10' 35''$ E., appearing somewhat higher than the land about it; of irregular form, and brownish colour, projecting southward nearly a mile. When seen at a distance, it appears like a low black island, having some patches of white sand upon it. The *Roadstead* is under the *Cape*, fit for vessels of all sizes, defended from *Levant* or East winds, and consequently is a place much frequented in summer; but in autumn, when southerly winds set in, it is quite open and dangerous. The *Cape*, as well as the *Roadstead*, is free from rocks, the bottom being sand with patches of sea-weeds. The anchors hold so well, that it will always be necessary to weigh them frequently. There are several warehouses on the coast, but no town. The customary anchorage is to the southward of the *Torre Vieja*, in $6\frac{1}{2}$ fathoms, half a mile from the shore. Near this tower is a spring of good water; and at the corner, where the high land begins, is a small tower, which, with a battery, provides for the defence of the *Roadstead*. It will be found extremely proper for vessels, perceiving the winds changing from the Eastward towards the South, to remove to a station further out; they will then be readily enabled to weather the point of *Cape Salou*.

TARRAGONA. Eastward from *Cape Salou* the coast forms a bay, with a beach of 7 miles long, reaching to the *City of Tarragona*, which extends itself on elevated ground near the sea, is well-fortified, and stands in latitude $41^{\circ} 8' 50''$ N., and longitude $1^{\circ} 18' 23''$ E. Here trading vessels frequently ride to the southward of the *City*, and westward of a tower which is erected near the sea; but of late years a mole has been run out three-quarters of a mile, in a southerly direction, (*S. W. by W.*), with a light upon it, affording accommodation for 100 sail of shipping, moored in tiers,

with their heads south-westward, a bower anchor to the West, fasts on shore from the larboard bow and quarter, and an anchor from the starboard to the N. N. W. (*N. $\frac{1}{2}$ W.*). Vessels will be subject to the West and S. W. winds; but these, as well as easterly winds, seldom blow home, although N. West and S. Easters frequently blow hard. Off this mole are 5 fathoms water; within the mole the water is shallower. The best anchorage for large ships will be with the mole-head N. $\frac{1}{2}$ E. (*N. N. E.*), distant $1\frac{1}{2}$ mile; the Church N. N. E. $\frac{1}{2}$ E. (*N. E. $\frac{1}{2}$ E.*); Cape Salou S. W. by W. (*W. S. W. $\frac{3}{4}$ W.*), and Cape Gros E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ S.*). Here you will be in 15 fathoms water, with a bottom of soft brown mud, the ground holding well, and sheltered from West to North. Should on-shore winds come on, and not blow violent, there will be room enough to get under weigh, and stand off to sea. E. by N. (*E. $\frac{1}{2}$ S.*), distant 3 miles from Tarragona, is a point of land, somewhat elevated, but between is a sandy beach. Two miles and a half further lies the little Town of Tamaris; and a mile beyond that is Cape Gros, between which and Tamaris is a small beach, with a rivulet, and the Town of Altafaya. On the Cape stands the Torre Dembarra: the Cape itself is higher than any other part hereabout, and the ground round it is both foul and rocky.

Between Tarragona and Cape Gros no vessel ventures to stop, unless for the purpose of commerce, being open to all winds. The same may be said from Cape Gros to Point Terrosa, a distance of 7 leagues. The shores are generally low, with uplands behind. Numerous villages and towns are scattered along it; but without a place of refuge, or of anchorage, during winds from the S. E. or S. W.

From the Point and Chapel of St. Christoval the coast becomes lofty, and has several steep precipices, with some small coves; of these that of Sitges is the most considerable, being distant nearly 3 miles from Point St. Christoval, and affording shelter for coasters from westerly winds, under the west point of a small Bay, called Cape de los Grills.

This coast is named the Land of Garraf, and extends itself 7 miles easterly from the Point of St. Christoval. About 5 miles from the latter is Terrosa, the most lofty and projecting point on this part; beyond it is Cala Mocisca, fit only for barks: near it is the Watch-tower of Garraf; and further on a little Fort, called the Castel de Fells.

In making this part of the coast, the seaman will readily discover his situation by the lofty Mountains of Neustra Senora de Monserrate, which rise inland to a very considerable height, extending E. and W., very broken in appearance, and having a number of sharp-pointed peaks: the most lofty of these bears N. $\frac{1}{2}$ E. (*N. N. E. $\frac{1}{2}$ E.*) from Villa Nueva; North (*N. by E. $\frac{1}{2}$ E.*) from Sitges; and N. W. (*N. N. W. $\frac{1}{2}$ W.*) from Monjui.

From the Tower of Garraf low land commences, running easterly, inclining toward the northward as far as the entrance to the River Llobregat, where a tower is erected, serving as a direction to point out its situation. Beyond this tower the same sandy plain continues 2 miles N. N. E. $\frac{1}{2}$ E. (*N. E. $\frac{1}{2}$ E.*) to Monjui; having passed which, you will see the City and Port of Barcelona.

BARCELONA is the Capital, or principal City in Catalonia, and one of the largest and most commercial towns in the Kingdom of Spain. It is strongly fortified, and divided into the upper and the lower towns, which, with the contiguous district of Barcelonetta, is computed to contain full 150,000 inhabitants. The principal articles of export are silks, cotton, leather, wool, glass, soap, fire-arms, and cutlery; together with wines, brandy, cork, fruits, &c. The imports are French and Italian manufactured goods, corn, rice, timber from the Baltic, yellow wax from Barbary, iron from Sweden, steel from England, hemp from Russia, and linen, copper, brass, and wires from Germany: to these may be added, stock-fish and dried cod from Newfoundland. Its general commerce during times of peace is so considerable, that more than 1000 vessels enter the port annually.

The City stands upon a plain, somewhat open to the S. E., but protected on the north and west, and contains an extensive arsenal, celebrated for its foundry of cannon; six hospitals, nine parish churches, 34 cloisters, six colleges, a theatre, and a dock-yard. The country around is thickly set with villages, and abounds with wood, corn, wine, fruits, honey, oil, cattle, and poultry. It is generally esteemed a healthy residence; but easterly winds will frequently produce fogs, which are peculiarly disagreeable.

Barcelona may be known when you are at a great distance, by the appearance of Monjui and its Fortress, which stand to the south-westward of the City; it appears high

and isolated, and is situated in latitude $41^{\circ} 22' 51''$ N., and longitude $2^{\circ} 9' 44''$ E. From it the *Lighthouse of Barcelona* bears N. E. $\frac{1}{2}$ E. (E. N. E. $\frac{1}{2}$ E.), the *River Llobregat* S. $\frac{1}{2}$ W. (S. S. W. $\frac{1}{2}$ W.), and *Fell's Castle* W. S. W. $\frac{1}{2}$ S. (W. by S.) a little westerly. The *City of Barcelona* has a *Mole* or *Jetty* running out from its eastern side, in a southerly direction: this *Mole* is now lengthened, and a *Lighthouse* and some *Batteries* erected upon it, within which vessels may lie secure from the S. E. winds; but a *Bar*, or *sandbank*, is continually accumulating before its entrance, running from *Monjui* towards the *Mole*, which has frequently not more than 10 feet water over it, and would most probably in time choke up the *Port*, did not the natives occasionally clear away the rubbish, and deepen the channel. Within this *Bar* are from 22 to 25 feet, gradually decreasing its depth toward the shores. Large ships are under the necessity of anchoring outside the *Mole*, much incommoded by winds, which frequently in winter do considerable damage. The following marks will lead to a part where men-of-war may ride with safety, sheltered from both East and S. E. winds. Let the *lighthouse* be brought in one with the *Tower of La Merced Church*, and the *Coast of Garraf* kept open of the South side of *Monjui*; you will then have 16 fathoms and upwards, and be stationed so as easily to clear the *River Llobregat*; but it will be necessary to weigh your anchor frequently; or with not an over-strong south wind, you may stand out to the eastward, making good a N. E. course, and run along shore $\frac{1}{2}$ miles off, where you will clear all kind of danger.

By an official notice, dated December 14, 1823, it appears that on the new *Mole* then erecting, and running out S. 6° W. (S. S. W. $\frac{1}{2}$ W.), at 212 toises from its commencement, and 50 toises from its extreme point, a *lighthouse* has been erected, to serve especially as a guide in passing the point of the *River Llobregat*, which bears from the *lighthouse* S. 25° W. (S. W. by W.); the *Signal Tower of Monjui*, S. 87° W. (W. N. W. $\frac{1}{2}$ W.); the old *Lighthouse*, N. 20° W. (North); and the *Point of the River Besos*, N. 35° E. (nearly N. E. by E.).

Sailing from *Barcelona*, the coast is low, and runs N. N. E. $\frac{1}{2}$ E. (N. E. $\frac{1}{2}$ E.) to the little *River Besos*, at the entrance to which is a shallow flat, two cables long: further on is the *Town of Badalona*, and beyond that a hill, having the *Fortress of Mongat* built upon it; this is about $7\frac{1}{2}$ miles from *Barcelona*. You will now stretch on E. N. E. $\frac{1}{2}$ N. (East $\frac{1}{2}$ North) 8 miles, passing the little *Towns of Masnou, Premià, Vilasar, and Mataro*. Off *Masnou* and *Premià*, about $3\frac{1}{2}$ leagues distance from *Barcelona* *Lighthouse*, there is a *shoal*, the east end of which, having 4 fathoms, lies with the *Church of Vilasar* N. E. $\frac{1}{2}$ N. (N. E. by E. $\frac{1}{2}$ E.), and on with the centre of the *Town of Motaro*. When you are within this *shoal*, the mark will be the *Church of Vilasar* N. E. $\frac{1}{2}$ E. (E. N. E. $\frac{1}{2}$ E.): here you will be in 6 fathoms water. The mark for running in-shore to the eastward of the bank is a large house in *Premià* N. W. by N. (N. by W. $\frac{1}{2}$ W.), and on with a tree on a hill, under which stands the *Town of Premià*: a little to the starboard of this tree stands a small house. To avoid the *shoal*, either in running to the eastward or westward, you should keep the whole of the *Town of Mataro* open to the S. eastward of *Vilasar*. Vessels sometimes resort to this anchorage for the purpose of obtaining a shelter from the heavy sea which drives in from the *Gulf of Lyons*, or else run for the *Roadstead of Mataro*, anchoring a mile to the southward of the town. The *Town of Mataro* may be distinguished by its having three steeples, and to the westward a large convent.

Two miles from *Mataro* is a small rivulet, and further on, in an E. N. E. (nearly East) direction, are the *Towns of Caldetas, Arens del Mar, Canet, and Calilla*, all standing near the sea, but without shelter for shipping. To the southward of *Arens del Mar* is a rocky reef, with $5\frac{1}{2}$ fathoms over it. A little beyond *Calilla* stands the *Chapel of Susannah*, nearly S. E. (S. S. E. $\frac{1}{2}$ E.), from which, about 1 mile, is a rock with very little water over, which must be carefully avoided; the marks for it are the *Chapel* in one with a remarkable large house, and *Cape Tosa* in a line with the town of that name. Between the *Chapel* and the *Town of Pineda*, which are distant from each other one mile, is a small rivulet; two miles further is *Malgrat*, another town or village, and near it another *Creek*.

BLANES. *Point Toldera* is low and flat, having a river to the northward, where the shore bends circularly round to the *Town of Blanes*, and thence to *St. Anne's Point*, forming a little *Bay*, where vessels may be sheltered from westerly winds in summer; but the south-easters are violent, and set right on the shore. On *St. Anne's Point* is a *Convent*, and near the southern part of the *Point* is a rock under water, which is dangerous. The most convenient place for anchorage here will be to the southward of *Blanes*, in 7 or 8 fathoms water; thence, should easterly winds come on, you can

easily get away, and be enabled to clear *Point Toldera*. At *Blanes* fresh water may be obtained, if requisite. From *Point St. Anne* the shore becomes elevated, perpendicular, and steep-to. E. N. E. $\frac{1}{2}$ N. (E. $\frac{1}{4}$ N.) $2\frac{1}{2}$ miles from *St. Anne*, are the *Cove* and *Town of Lloret*, fit only for coasting vessels; it may be known by an old *Castle* standing on a hill at the eastern point of the *Bay*.

CAPE TOSA is in latitude $41^{\circ}42'50''$ N., and longitude $2^{\circ}53'58''$ E., at the western side of which is a small *Bay*, having good depth of water, and sheltered from west winds. The best anchorage is to the eastward of the S. W. part of the beach, in 9 fathoms, sandy ground, a little more than a cable's length from the shore; from whence, should the winds shift to the eastward, you may get under sail, and easily weather the *Cape*. Small vessels may run into 23 fathoms, close under the lee of the *Cape*, where they will be safe from all winds from the west round to the south. Close to the *Cape* are 6 fathoms. Upon the *Cape* stands part of the *Town of Tosa*; and at its eastern point is a small island, between which and the land is a narrow passage, inconvenient, intricate, and rocky, to be used only by small vessels in cases of great emergency. Fresh water may readily be obtained from various wells hereabout. All along this coast will be seen fishermen with fires in their boats, for the purpose of catching anchovies, sardinas, &c.; and upon the mountains you will also perceive the fires of the charcoal makers.

Proceeding from the *Cape*, the coast continues high and precipitous. N. N. E. $\frac{1}{4}$ N. (N. E. by N.), about half a league, is the *Cove of Llibarola*, fit only for small vessels, with S. W. and West winds. Further on is *Bosquet Point*, and beyond that, the *Bay of Feliu, Philiou, or St. Felice de Guizols*.

ST. FELIU, or PHILIOU, is a good summer *Bay*, but open to East, S. E., and South winds, which blow commonly with much force in autumn and winter; it is above half a mile wide, with good depth of water, and a bottom of sand and sea-weeds, much frequented, and well supplied with necessaries of all kinds. Both *Points* are high; the western land may be known by the *Rock Couchinou*, which is at the extremity of the *Point*, and by the *Chapel of St. Selmo*, standing upon the high land within it: the *Eastern Point*, or *Point Fourco*, has a small island near it, and two pillars. Between these *Points* are 10 fathoms water. As you enter, the small town of *Philiou* is opposite, situated on a fine plain; it was formerly large and fortified, but its walls, towers, and fortifications are now razed to the ground. To the westward is a *Convent*. There is said to be a *rock* under water on the western side, almost opposite to the fishermen's houses at the foot of the mountain, with 3 and 4 feet water upon it. You may anchor, after passing this *rock*, in the middle of the *Bay*, or rather more inclined to the eastern side, in 7, 8, or 9 fathoms, or nearer still to the east shore, in 5 fathoms. Nearly opposite the eastern side of the *Town* is a large *rock* joining the land, named *Guizols*, where was formerly a small *Battery*. At the corner of this, vessels of little draught of water commonly ride in 3 fathoms, with a fast on shore. Another spot of beach is to the eastward, called *Cala Sans*, rocky, and too shallow for use; but the best anchorage is about a cable's length out to the southward of the *Rock Guizols*, in 8 fathoms, from whence, should the wind get round to the east, you may readily clear the western point of the *Bay*, and stand out to sea. Great caution is requisite, lest you should be surprised here with S. S. E. winds, which blow directly in.

Off the eastern land of *St. Philiou* lie the *Balellas rocky Islands*, having a clean passage between them and the shore. To the N. eastward is the *Cove of St. Pol*, shallow, uninhabited, and seldom resorted to; from thence it is low land, turning to the northward, and forming a kind of bight with the open *Beach of Aro*, before which lies a *sunken rock*, with but little water over it, and therefore very dangerous. It is about 2 cables' length distant from the shore, and has the following marks: *Point Forchu* open of *Cape Tosa*, and *Balentina Tower* in one with a white patch in a mountain to the northward. The *Tower of Balentina* stands upon a *Point*, which projects a little to seaward, and is the end of the *Playa del Aro*, and beginning of the *Bay of Palamos*. Near the *Tower* is a small rivulet, coming from the *Village of Calonge*; and from hence the low sandy shore continues to the *Town of Palamos*.

PALAMOS is in latitude $41^{\circ}51'10''$ N., and longitude $3^{\circ}3'38''$ E., being nearly 4 leagues to the N. eastward of *Cape Tosa*. In coming from the westward, you will observe some houses on the western beach, called *San Antonio*, and a windmill in ruins to the eastward; this latter stands on the southern point of the *Bay*, and bears from the *Point of Cala St. Pol* N. E. $\frac{1}{4}$ E. (E. N. E.), distant $3\frac{1}{2}$ miles: the *Point* is of moderate height, and stretches into the sea a considerable way. The *Town of Palamos*

stands on the beach, having a *Mole*, about 150 yards in length, running westerly, and forming a harbour to the northward. Near the *Point of the Mole* are 20 and 21 feet: it is safe with fair weather for a limited number of small vessels, and sheltered from the E. S. E. toward the South, but with opposite winds it must not be attempted. W. and S. W. winds drive in a great swell of the sea; but N. W. winds are still more to be dreaded, frequently wrecking vessels against the *Mole*. If, with a large ship, you are desirous of shelter from winds from the east, or a little to the southward of east, bring up nearly E. and W. (*E. S. E. & E. and W. N. W. & W.*) with the *Mole*, in 7 fathoms, or, with still better facility to put out to sea again, in 9 fathoms, the *Mole* bearing N. E. (*E. N. E. & N.*); the ruined *Windmill* will then be about E. S. E. (*S. E. & E.*).

S. W. $\frac{1}{2}$ W. (*W. S. W. & W.*) from the *Mill*, distant half a mile, and E. S. E. (*S. E. & E.*) from the eastern part of *San Antonio*, lies a rocky shoal, with only 10 feet water over it, steep-to, and therefore dangerous. In order to clear this shoal when coming from the westward, bring the vessel's head on the houses of *San Antonio*, taking care not to go to the eastward of North (*N. N. E. & N.*); you will then discover *Point Grossa*, hilly, and to the eastward of the windmill: bring it in one with the *Mill*, and you will be in the direction of the shoal; therefore, standing right on for *San Antonio*, you will turn to the eastward, bringing the *Mill* E. by N. or East (*E. by S. & E. or E. S. E. & E.*), and thus pass to the N. Westward of it, whence you may proceed to your anchorage. Or you may bring the middle house of *San Antonio* in one with the large black *Tower* to the northward, and the *Mill* in one with the northern angle of the *Bastion* on the *Point of Palamos*. To the eastward of the windmill lies a rock a little under water, about a cable's length from the *Point*. In coming for *Palamos* from the eastward, you may go between this rock and the former shoal, in 13 or 15 fathoms, the channel being above one-third of a mile in width: give the rock a good berth, but keep under the *Windmill Point*; or you may go to the westward of the shoal, by bringing the head of the *Mole* in one with the western houses of *Palamos*; then stand towards the western shore, and proceed for the anchorage. W. $\frac{1}{2}$ N. (*W. N. W.*) from the *Windmill*, but near the shore, is said to be a rocky bank, with 13 feet over: the passage between it and the land is rocky, with 2 fathoms, and fit only for barks. A little way to the northward are the *Lescortino Rocks*, appearing above water. Mariners should always be careful to give the eastern shore a berth in advancing to the anchorage.

From the *Mill* the coast runs N. Eastward (*E. N. E.*), and is lofty. About 2 miles from *Point Palamos* are two *Creeks*, both open to the S. E. winds; they are small and uninhabited. The western one has on its eastern point a *Chapel*, called *St. Esteban*; the other is named *Cala Castell*. About E. $\frac{1}{2}$ S. (*E. S. E.*) from *Castell Point*, distant one mile, lie the *Hormigas Islands*, which the sea frequently breaks over; between these and the land the largest ships may pass, if necessary, keeping nearer the land.

CAPE ST. SEBASTIAN. A little more than 2 miles N. E. by E. (*E. N. E. & E.*) from *Point Castell*, lies *Cape Sebastian*, in latitude $41^{\circ} 53' 30''$ N., and in longitude $3^{\circ} 8' 8''$ E.; it is high, and has a *Chapel* built upon it. A mile before you arrive at this, you will perceive *Calellas Cove*, which is small, open to the S. E., and fit only for coasters. Beyond the *Cape* are two other *Coves* of a similar description, called *Cala Tamarin* and *Cala Blanca*.

CAPE BEGU. Three miles and a half N. N. E. (*N. E. & N.*) from *Cape Sebastian* is *Cape Begu*, in latitude $41^{\circ} 56' 38''$ N., and longitude $3^{\circ} 9' 30''$ E. The land hereabout is lofty, and forms the easternmost part of the coast. About a mile to the northward of it is a *Point* with some small *Islands*, and on the north side of this *Point* is *Begu Cove*, sheltered from west and south winds: the bottom is sandy, and the depth from 9 to 13 fathoms: there is a rock at its entrance, and some houses and a *Tower* on the shore. At the north point of the *Cove* are the *Losas de la Cala Rocks*, close in-shore, and appearing above water. Here ends the high land which began at *Palamos*, and a low flat shore commences, which extends northward to the *River Ter*, or *Fer*. On its banks, three miles inland, stands the *Town of Torruella de Mongris*, and near it is a hill, with some ruins upon it. The northern point of this river is high. To the S. E. (*S. S. E. & E.*) are the two *Medas del Estardis Islands*, bearing from each other nearly N. W. and S. E. (*N. N. W. & S. S. E. & E.*): that to the north-westward is the largest, and has a small fort erected upon it; the other rises up like a pyramid. There is a channel, if necessary, between them and the land, the water within which is deep.

THE GULF OF ROSAS. From the *River Ter*, about two-thirds of a mile, is *Cape Estardy*, considered the southern point of the great Bay, or Gulf of Rosas. The land is lofty, and continues so nearly 3 miles N. W. $\frac{1}{2}$ N. (N. by W. $\frac{1}{4}$ W.), where stands the *Tower of Mongat*; it then turns W. N. W. $\frac{1}{4}$ W. (N. W. $\frac{1}{2}$ W.) 2 miles, to the *Town of La Scala*, and is succeeded by a low sandy beach, which extends beyond the mouth of the *Lake of Ampurias*. Within this space is the *River Fluvia*, on the northern bank of which stands the small *Town of San Pedro Pescador*. About 1 mile inland, behind the above *Lake*, is the *Town of Castellon de Ampurias*, where, properly speaking, begins the *Bay of Rosas*.

THE BAY OF ROSAS is about $2\frac{1}{2}$ miles in breadth, and above a mile in depth: at the bottom of the Bay stand the *Town* and *Fortress*. The western shore is low, but the eastern side is hilly, and you will see on a point the *Castle de la Trinidad*, called also the *Bouton de Rosas*. Here vessels may find security from all winds; the bottom is clear from rocks, and in general mud, and near the shore, sand and sea-weeds. Small vessels anchor to the S. W. (W. S. W. $\frac{1}{4}$ S.) of the eastern angle of the place, in $2\frac{1}{2}$ or $3\frac{1}{2}$ fathoms, abreast of the suburbs of the town, at a cable and a half's distance; but to be more secure from the S. E. winds, you may run under the eastern shore, into 8, 7, or even 6 fathoms, the ground being clean throughout, and the land high; bring the *Castle* S. E. (S. S. E. $\frac{1}{4}$ E.), being about half a mile from the middle of the suburb, and $2\frac{1}{2}$ cables distant from the high land. The north wind coming from the *Pyrenean Mountains* frequently comes on with great fury; but it is favourable for running out of the Bay, and therefore seldom productive of any accident. The *Castle de la Trinidad*, the *Medas Islands*, and *Cape Begu* lie S. $\frac{1}{4}$ E. and N. $\frac{1}{4}$ W. (S. by W. and N. by E.) of each other; the former at 12 miles' distance, the latter about $19\frac{1}{2}$ miles from the *Castle*.

Leaving the *Bay of Rosas*, the shore runs high from *Trinidad Castle* to *Cape Falco*, a distance of 2 miles E. S. E. $\frac{1}{4}$ S. (S. E. $\frac{1}{2}$ S.), along which vessels may anchor with easterly winds. Here are the two *Canellas Creeks*, and abreast of the northern one are two little islands, half a mile from the land, the ground being all clean, and a channel, if necessary, between them and the shore. Nearly E. by N. (E. $\frac{1}{4}$ S.) from *Cape Falco*, about 2 miles, is the extremity of *Cape Norfeo*, having a broad and lofty appearance, with a small island to the southward: on its western side is an inlet, with two small creeks, called *Montjoy* and *Pelosa*; they are choked up with stones, and of little utility. *Norfeo Tower* stands on the *South Point of Pelosa*; to the eastward is the *Cala de Joncils*, small, but clean, and sometimes frequented by coasting vessels, it being sheltered from the north-east. Having passed *Point la Figuera*, you will meet with another similar Cove, called *La Osaletta*. You will now arrive at *Cala Nans*, the south-eastern Point of *Cadaquie Bay*, bearing from *Cape Norfeo* N. E. $\frac{1}{4}$ N. (E. N. E. $\frac{1}{4}$ N.), distant 2 miles and one-third.

THE BAY OF CADAQUIE is capable of affording shelter to ships of all sizes: it runs inward a full mile N. Westward; the town lies at its further end, on an elevation, and has a small beach near it; the S. W. Point, or *Cala Nans*, is high and steep, with a little Creek on its north-western side. Further on is *Point la Conca*, having three points, and appearing like a sugar-loaf island; off the furthest point are some rocks, but at the distance of 2 boats' length from them are 5 and 6 fathoms: there is also a Creek to the westward, but the best anchorage and shelter is before the Town. The western shore is clean, and may be run along at a small distance in 10 fathoms water; but the north-eastern side is broken ground and low: off its south-eastern point lies a triangular island, called *Cucurucu*, outside of which the water is deep, so that about a cable's length to the S. S. Eastward, when you get the *Church of Cadaquie* in sight, you may run along in 14 fathoms; some rocks run out about fifty yards to the westward, but there are $5\frac{1}{2}$ fathoms within a boat's length of them. To the northward of *Cucurucu* is *La Aranilla*; the passage between them is shallow, narrow, and encumbered with rocks: 426 yards beyond *Cucurucu* are three rocky Islands, called the *Escollos*, which, with *Point la Conca*, form the entrance to the inner Haven; between them are 11 and 13 fathoms. Near the *Escollos* are only 2 fathoms; but at the distance of two boats' length, you will find 4 and 5 fathoms. There is a good depth of water over the Haven, and the bottom is of clay, mud, and sea-weed, holding well, particularly towards the south-western shore; there are, however, great inequalities in the ground, falling sometimes suddenly from 6 to 9 and 11 fathoms: but about S. E. (S. S. E. $\frac{1}{4}$ E.) from the highest part of the Town is a rocky bank, which in its shallowest part has not above 2 fathoms water over it, and therefore becomes dangerous to large vessels; it is about one-third of a cable's length, and lies in one

with the *Escollas*, *Cucurucu*, and the most projecting part of *Conca Point*, before you get it in one with *Point Cala Nans*. The best and safest anchorage for large ships is beyond *Conca Point* in 10 or 11 fathoms, opposite a small *Battery*, and in one with a *Windmill* to the northward. Moor N. E. and S. W., or get an anchor out to the S. W. and a cable made fast to the rocks under the *Battery*. Small vessels generally proceed to the little *Town of Playa de Pool*, and anchor there in $2\frac{1}{2}$ or 3 fathoms, sandy ground; there they will ride secure from all winds, and even out of the swell of the sea from the eastward. There also is a *Cove* on the eastern shore, which is equally well sheltered, and the same depth of water, called *Cala Ross*: here vessels should bring up under the *Point of the Battery*.

The *Haven* or *Bay of Cadaquie*, in latitude $42^{\circ} 17' 15''$ E., is often used by ships bound to the eastward, who, on making *Cape de Creux*, which lies about 3 miles to the north-eastward, with a westerly wind, find, on their approach, it has shifted to the eastward; sooner, therefore, than beat off and on, during the night, they prefer running for this place. To such we recommend to observe the two islands which lie off *Cape de Creux*, viz. *Maza de Oro* and *Masina*, bearing from each other N. N. E. $\frac{1}{2}$ E. and S. S. W. $\frac{1}{2}$ W. (N. E. $\frac{1}{2}$ E. and S. W. $\frac{1}{2}$ W.); and in steering for the entrance of *Cadaquie*, the *Islands of Aranilla* and *Cucurucu*, which have been already described. Give a berth to the former, on account of the reef which stretches from it S. E. (S. S. E. $\frac{1}{2}$ E.) a cable and a half, over which are but 3 fathoms water, although close to the reef there are 13. By keeping *Maza de Oro* and *Masina* in one, or coming no nearer the shore, while steering for the inner haven, until you bring the *Church* in one with *Cucurucu*, then nearing the western shore, and going between it and the *Escollas*, you will reach it in safety. North and N. E. winds are most common, blowing fresh in winter and autumn: sometimes you will meet with a gale from the southward, but S. Easters seldom last long: and when at the bottom of the inner haven, you will lie perfectly secure. Good water is obtained from a fountain near the beach.

On the north side of *Cadaquie* is a small creek, called *Port Lliegat*, where merchant vessels of small draught may anchor in a sandy bottom, with 3 and $3\frac{1}{2}$ fathoms, secure from all winds to seaward, but subject to squalls from the N. E. off-shore. In entering, keep the western shore on board; for a sort of reef runs out from the eastern point, on which the sea commonly breaks.

CAPE DE CREUX. From *Point Lliegat* the coast continues high, and between it and *Cape de Creux* are several small creeks and inlets, fit only for coasting vessels. About three-quarters of a mile from *Port Lliegat* lies the little *Island Masina*, bearing nearly S. by W. (S. S. W. $\frac{1}{2}$ W.) from the *Tower* on *Cape de Creux*: the *Island* is clean all round, and may be passed inside with safety. E. $\frac{1}{2}$ N. (E. S. E. $\frac{1}{2}$ E.) from the *Tower* is the *Cape* itself; and close to it a little island, between which and the *Cape*, the passage is fit only for small craft: a reef runs out from its southern end; you must therefore give it a berth in passing. The *Maza de Oro* lies E. $\frac{1}{2}$ N. (E. S. E. $\frac{1}{2}$ E.) from the *Cape* and *Tower*, distant about half a mile; being small, irregular, and of moderate elevation. The *Channel* between it and the *Cape* is good and deep, having 23 fathoms midway; but decreasing toward the *Cape* to 9, and toward the *Island* to 14 and 9 fathoms, except to the N. westward, where a small reef runs out about one-third of a cable's length, with 3 fathoms water over it, which reef, with that mentioned of the former *Island*, are the only dangers you will meet with in the passage between *Maza de Oro* and the *Cape*.

Cape de Creux is not very high, but uneven, and has a watch-tower upon it. Its position is in latitude $42^{\circ} 19' 45''$ N. and longitude $3^{\circ} 15' 48''$ E. Over it the mountains rise up lofty, and may be seen a great way off at sea. This *Cape* is the western entrance to the *Great Gulf of Lyons*.

The *Tower* on the *Cape* bears from *Cape Begu* N. $\frac{1}{2}$ E. (N. N. E. $\frac{1}{2}$ E.), distant 23 miles.

The land continues high about 5 miles from the *Cape*, in a W. N. W. (N. W. $\frac{1}{2}$ W.) direction, so far as *Port Santa Cruz de la Selva*; and ships within this space may find shelter from S. W. winds, in 15 and 20 fathoms, coarse sandy ground. The *Port of Santa Cruz* affords accommodation for vessels of any size, its entrance being half a mile broad, and running in southerly a full mile. On its eastern point is a battery, built on a small hill, and on the side next the haven a little reef runs out from the point. At the bottom of the *Port* stands the *Village*, before which is the anchorage in 34 fathoms, which is the general depth of the *Port*, at the distance of a cable's length from the shore. The western side of *Point Sernella* is equally

high, and there is a pool of water near the village within the *Port*. When North or N. W. winds come on, they frequently continue long, and the latter often occasion serious accidents: it is most advisable only to use it on occasions of temporary convenience, as when bound eastward, and unable to clear *Cape de Creux*; in which case, by bringing-to under the western side of *Point Sernella*, in about 10 fathoms, you will, with a moderate northern wind, find yourself able to sail again, and weather the *Cape*.

The coast now winds to the northward, forming an open bay, used only by coasters. Two small islands lie close to the shore, and inland is the *Town of Llansa*: further on is *Cape Raza*, and beyond it, on a mountain's top, is a *Convent*, called *San Pedro de Roda*: this bears from the *Tower of Cape de Creux* W. $\frac{1}{2}$ N. (*W. N. W.*); it is a very prominent object when coming from seaward, and well discovers the situation of *Port Selva*.

About half a mile from *Cape Raza* is a little creek, open to the N. E.; it is called *Cala de Pueblo Nuevo*, and has a small lofty island lying on its southern side. The coast along continues craggy and mountainous toward *Cape Servera*, $2\frac{1}{4}$ miles, in a N. by E. (*N. N. E. $\frac{1}{2}$ E.*) direction: about two-thirds of a mile before you come to which, is the *Cala de Parbou*, of little use, and uninhabited. *Cape Servera* is high land, and the last maritime point belonging to the dominion of Spain, being 9 miles distant from *Cape de Creux*, from which it bears N. W. $\frac{1}{2}$ N. (nearly N. N. W. $\frac{1}{2}$ N.).

SECTION III.

THE BALEARIC ISLANDS,

COMPREHENDING IVIZA, FORMENTERA, MAJORCA, AND MINORCA.

Variation, One Point and Three Quarters West.

IVIZA is an island of considerable elevation, and great fertility, being in extent 190 square miles, and having a population estimated at 16,000: along the coasts there are watch-towers erected on the principal headlands, from which a vessel may be seen a great way off, and an alarm given in case of danger. There are no venomous animals, and the soil produces wine, corn, oil, fruit, flax, and hemp, with very little labour. Salt, which is held in high estimation, is also obtained from natural evaporation. Its principal harbours are *Iviza*, the Capital, lying on the S. E. side, and *Port San Antonio* on the N. W. Its principal exports are salt, fish, and wood.

Cape Jueu, forming the S. Western Point of *Iviza*, is in latitude $38^{\circ} 51' 47''$ N. and longitude $1^{\circ} 17' 43''$ E., and bears nearly East (*E. S. E.*) from *Cape San Antonio*, on the Spanish Main, from which it is distant 18 leagues. Off the western extremity of *Point Jueu* lie two rocky islands: the inner is named *Bedramell*, and the outer, or higher one, *Bedra*, this latter being at the distance of a mile from *Point Jueu*, very lofty, and divided on its summit by two peaks. Between *Bedra* and *Bedramell* is a narrow channel, with 18 fathoms water; and between *Bedramell* and *Point Jueu* the passage is broader, with the same depth. *Cape Jueu* itself is high and steep, distinguished by trees upon it, and a *Tower* at its extremity. S. E. $\frac{1}{2}$ E. (*S. S. E. $\frac{1}{2}$ E.*) from *Cape Jueu*, distant $1\frac{1}{4}$ mile, is *Cape Lentrisca*; between them is no convenient roadstead, though the ground is clean. From the *Cape E. N. E.* (*E. $\frac{1}{2}$ N.*), nearly a mile, is *Lentrisca Cove*, having deep water at its entrance, but only 3 and 4 fathoms within: it is small, fit only for coasters, and open to the S. Eastward.

From *Cape Lentrisca*, E. N. E. $\frac{1}{2}$ N. (*E. by N.*) distant 2 miles, lies *Cape Negrete*, with a small kind of Bay on each side of it; further on is *Port Roche*, still less than *Lentrisca Cove*. The Point of *Port Roche* is beyond the Cove, and has a red appearance, with several breaks, and a small reef running from it. Nearly three-quarters of a mile E. S. E. $\frac{1}{2}$ S. (*S. E. $\frac{1}{2}$ S.*) from *Point Roche* is *Point Yundal*, low and flat, but steep and white on its western side. To the southward another reef runs out one cable and a half: on each side of the Point is an open Bay, clean, and affording fresh water. One mile and a half from the Point is *Cape Falcon*, lofty, but sinking downward to the

extremity, which projects toward the sea, and off which lie two small rocky islands; there is another still smaller, about two cables' length from the *Point*. The land now bends circularly to where stands the *Tower of Portas*, on a flat projecting headland, distant $1\frac{1}{2}$ mile from *Cape Falcon*: this forms the northern part of one of the *Passages*, or *Freus*, which divide *Iviza* from *Espalmador Island*. Between *Cape Falcon* and *Portas Point* is the deep *Bay of Cueva Larga*, having within it a wharf, and some circumstances of good water.

To the northward of *Portas Point* is *Salrosa Tower*, distant $1\frac{1}{2}$ mile: this is high land, but from thence to *Point Ratyada* it is low and flat. Here lies the *Ratas Island*, clear to the South, but foul on the north side; hence to *Point Ratyada* is the beach of *Boza*, or *Ambosa Bay*.

Point Ratyada has two rocky islands off it, one to the westward, the other to the eastward, about half a cable's length from the *Point*: these are called *Negras*, or *Black Isles*; between them and the *Point* are passages with from $4\frac{1}{2}$ to $6\frac{1}{2}$ fathoms water.

PORT IVIZA. The western side of *Port Iviza* is formed by this *Negras Island*, and land adjoining *Point Ratyada*, where a little *Sea Tower* is erected, and on the high ground stand the *Castle* and *Town of Iviza*. The harbour runs in westerly, turning suddenly round in a circular direction toward the *Island Plana*, off which lies *Grossa*, or *Great Island*, and near it the small *Isle of Botafuego*, forming the eastern point of the Harbour: between *Grossa* and *Botafuego* are 2 fathoms water, and between *Grossa* and *Plana* is a small channel for boats. In proceeding from *Point Portas* for *Iviza Harbour*, there are five islands or rocks lying in the fair-way: the first of these is named *Espanja*, or the *Spunge*, small, round, and flat, bearing S. S. W. $\frac{1}{2}$ S. (*S. W. by S.*) from *Iviza Castle*, distant 2 miles. N. E. by N. (*N. E. $\frac{1}{2}$ E.*) from *Espanja*, half a mile, is the *Great Malvin*, having at its northern end two little rocks, and a shoal, with only 1 fathom water over it, about two-thirds of a cable N. W. by W. (*N. W. $\frac{1}{2}$ N.*) from them. A quarter of a mile N. E. $\frac{1}{2}$ N. (*N. E. by E.*) from the *Great Malvin* is the *Little Malvin*, and to the eastward, the *Great* and *Little Dado*: between these is a shoal of 1 fathom water, over which the sea commonly breaks. These two banks of 1 fathom each are the only dangers; for the rocks are steep-to, and deep water will be found all round them. Your anchorage in *Iviza Harbour* will either be abreast of the *Island Plana*, in from 5 to 8 fathoms, or nearer the opposite *Mole* in less water: the depth shoals gradually as you advance.

CAPE MARTINET. E. N. E. $\frac{1}{2}$ N. (*E. by N.*) from *Grossa Island*, distant one mile, is *Cape Martinet*, high, ragged, and ending in a point. Between is the *Bay of Talamanca*, sometimes mistaken for *Iviza Harbour*, from which it is separated by the *Islands Plana* and *Grossa*; the ground is clean, and the beach sandy, decreasing in depth as you advance within it, but open to the south-easterly winds.

N. 46° E. (*E. N. E. $\frac{1}{2}$ N.*) distant $1\frac{1}{2}$ mile from *Cape Martinet*, is *Cape Negrete*; in sailing towards which, you will pass the two *Llados Islands*; they are distant from the shore full half a mile, and nearly the same from each other: deep water is all round them, and men-of-war may, if necessary, pass between them, or within them and the land. Further on is *Cape Llebrell*, of a white appearance, high and steep, with a rock before it; boats can pass between this rock and the point.

CALA LONGA. N. by E. (*N. N. E. $\frac{1}{2}$ E.*) from *Cape Llebrell* is *Cala Longa*, a narrow Cove, running in W. N. W. (*N. W. $\frac{1}{2}$ W.*) half a mile, fit for vessels with N. E., S. W., and N. W. winds, but open to the S. E. Fresh water may be procured there from an adjacent well: there are 11 fathoms at the entrance, gradually decreasing inwards.

From *Cape Llebrell* to *Cala Blanca Point* the distance is half a mile, 1 mile N. $\frac{1}{4}$ E. (*N. N. E.*) from which is *Point del Rio*, of a dark appearance. Nearly N. N. W. $\frac{1}{2}$ N. (*North*) of this is the *River of Santa Eulalia*, and further on is a *Church* of the same name. You will now reach a Cove, called *Cala Poda*, fit for small craft only, and encumbered with rocks. *Point Araby* ends the coast in this direction, and bears from *Cape Llebrell* N. E. $\frac{1}{2}$ N. (*E. N. E. $\frac{1}{2}$ N.*), distant $4\frac{1}{2}$ miles. Off the *Point*, which is low, dark, and projecting, are the three rocky islands of *Santa Eulalia*. About half a mile S. E. $\frac{1}{2}$ S. (*S. S. E.*) from the largest island is a shoal, which is dangerous; the sea generally breaks over it, and deep water is all round it; this must be carefully avoided, especially at night: there is a passage between it and the islands with 16 fathoms, but it should be attempted with the greatest care: there is also a small rock lying nearly West of *Araby Point*, distant a quarter of a mile.

Vessels may pass between the *Isles of St. Eulalia* and *Point Araby*; but between the islands the channels are narrow and hazardous, and between the middle and lesser islands boats only can go. There is anchorage off *Cala Poda* with N. E. and N. W.

winds, and water may be procured at a small lake there. This part is called the *Bay of Santa Eulalia*.

From *Araby Point* the coast runs N. E. $\frac{1}{2}$ N. (*E. N. E. $\frac{1}{2}$ N.*), nearly $2\frac{1}{2}$ miles, being high, steep, and rocky. Nearly half a mile from the *Point* is the small rocky *Island of Galera*, and a little further on, the larger one of *Cana*, within which boats only can pass.

Cape Campaniche is steep for above two-thirds of its height, and the remainder low land; it does not project far into the sea, but is the easternmost point of *Iviza*. Between *Points Araby* and *Campaniche* is no good anchorage or known danger. One mile and a quarter E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ S.*) from *Cape Campaniche* lies the *Island Tagomago*, having a small rock off its northern end, but otherwise steep all round; the channel within it has 14 fathoms, and is considered good with the wind in your favour. N. $\frac{1}{2}$ W. (*N. by E. $\frac{1}{2}$ E.*), distant half a mile from *Cape Campaniche*, is *Green Point*, having a tower and village upon it; and N. $\frac{1}{4}$ W. (*N. by E. $\frac{1}{2}$ E.*) from the *Cape*, distant $1\frac{1}{2}$ mile, is the *Shoal of Figueras*, over which the sea constantly breaks; it is steep all round, and sometimes appears above water: between it and the land the channel is nearly half a mile wide, with from 7 to 11 fathoms water in it. Three miles and a half from *Point Verde*, or *Green Point*, is a small Cove, running in nearly W. N. W. (*N. W. $\frac{1}{2}$ W.*) about the length of three cables; it is open to the S. E., but sheltered from N. E., N. W., and S. W. winds: at its entrance are 11 fathoms, gradually shallowing as you advance towards the beach. Vessels lie safely here with their cables fastened on the shore.

About a mile to the N. Eastward of this Cove is *Point Grossa*, having a small *Island* near its extremity, between which is a passage for boats only: the *Point* itself is high, steep, and ragged. N. W. by N. (*N. by W. $\frac{1}{2}$ W.*), one mile from *Grossa*, is *Point Yoc*; and three-quarters of a mile further, N. W. $\frac{1}{2}$ N. (*N. N. W. $\frac{1}{2}$ W.*), lie the *Hormigas*, two small rocks, about a cable's length from the land. *Point Hormigas* is flat, with breakers before it. From hence to *Point Den Serra*, which is the northernmost point of the *Island*, and in latitude $39^{\circ} 6' 22''$ N., is 3 miles. In this space are two Coves; the principal, or *Caleta's Cove*, is $1\frac{1}{2}$ mile from the *Hormigas*, and used only by timber vessels in fair weather. *Den Serra Cove* is $1\frac{1}{4}$ mile further on, and is a place of the same description. *Point Den Serra* bears from *Point Hormigas* nearly W. N. W. (*N. W. $\frac{1}{2}$ W.*), and is of a moderate height, level at top, of a red appearance, and woody. There is a small ledge of rocks runs from it toward the northward.

From *Point Den Serra*, 1 mile W. $\frac{1}{2}$ S. (*W. by N.*), is *Port Portinache*, having anchorage, sheltered from the N. E. round by S. to the N. W., but exposed from the N. W. to the N. E. The *Points* of this Bay are too low to keep off the wind; for even the sea sometimes drifts over them: near the eastern point the land is somewhat higher, and has a watch-tower upon it; there are 11 fathoms at the entrance, and 4 further in, the ground holding well. A little to the westward is another small Cove, running inward about half a mile, clean and deep; and further on is *Charraca Cove*, of similar description, but open to the winds from the N. W. to the N. E. quarters, and affording but little protection.

Nearly W. S. W. (*W. $\frac{1}{2}$ S.*), $1\frac{1}{4}$ mile from *Point Charraca*, is *Port Balanzat*, or the *Bay of St. Michael*; the entrance to which is a quarter of a mile in breadth, and three-quarters of a mile in depth: in your way you will pass the small *Island of Caldes*, between which and the shore is little or no passage. The eastern *Point* of *Port Balanzat* is called *Cueva de Orensa*; the western *Point*, *Cape St. Michael*: this latter is lofty and perpendicular, bearing from *Orensa* nearly W. S. W. (*W. $\frac{1}{2}$ S.*), distant three-quarters of a mile. On *Cape St. Michael* stands a tower; and off it lies *Morada Island*, having a narrow channel between it and the *Cape*. In this Bay is a depth of from 13 to 5 fathoms; but being narrow and confined, it is adapted only for small vessels, affording shelter from the N. and N. E. winds, and then requiring further security by cables on shore, and anchors to windward. Two rivers fall into this Bay, bringing down a great volume of water.

W. S. W. (*W. $\frac{1}{2}$ S.*) from hence, 1 mile, is *Cape Rubios*: there is a small Cove here, but of little utility. One mile and a half further, in the same direction, is *Cape Eubarca*, of a dark appearance, and higher than *Cape Rubios*. S. W. $\frac{1}{2}$ W. (*W. S. W. $\frac{1}{2}$ W.*), three-quarters of a mile from *Cape Rubios*, lie the *Two Margarita Islands*: that nearer the land is perforated through, so that barks may pass under it; the outer, or smaller one, is a solid rock; between it and the inner *Island*, and also between the inner *Island* and the land, the water is deep, and the passage clear. The coast continues in nearly a S. W. $\frac{1}{2}$ S. (*W. S. W. $\frac{1}{2}$ S.*) direction, $1\frac{1}{4}$ of a mile, to the *Cape*

and *Peak of Nono*, which is of a conical form, woody, and projecting into the sea ; the point having a white appearance, and rising perpendicularly over the water.

From *Cape Nono*, S. $\frac{1}{2}$ E. (S. by W. $\frac{1}{2}$ W.), distant three-quarters of a mile, is *Point Foridada*, high and steep. One quarter of a mile further are the *Island* and *Cove of Salada*: the former lies close to the land, and the latter affords no shelter. Two miles beyond is *Cape Negrete*, or *Point Verde*, of moderate height, and woody. Here begin the confines of *Puerto Magno*, or the *Port of San Antonio*.

PORT SAN ANTONIO. S. S. E. $\frac{1}{2}$ E. (S. $\frac{1}{2}$ E.) from *Cape Negrete*, about one-third of a mile, is *Cape Blanco*: between them is a kind of *Bay*, called *Cala Gracio*. Half a mile further is the *Point of Cuevas Blancas*. Between this and *Cape Blanco* is another *Bay*, called *Cala de los Moros*; in both of these vessels may ride when the weather is fair. S. E. $\frac{1}{2}$ S. (S. S. E.) from *Point Cuevas Blancas*, distant half a mile, is a low point; and half a mile E. N. E. $\frac{1}{2}$ N. (E. $\frac{1}{2}$ N.) from this last point, stands the *Church of San Antonio*. The *Bay* now turns E. (E. S. E. $\frac{1}{2}$ E.) for half a mile, and then S. S. E. (S. $\frac{1}{2}$ E.) one mile and a quarter, to a spot where there is a rivulet of excellent water, when it rounds toward *Point de la Fuente*. About $1\frac{1}{2}$ mile from this *Point* is *Cala del Aceyte*, and half a mile W. S. W. $\frac{1}{2}$ W. (West) of that, is *Cala de la Balsa*: this may be considered the western point of the *Bay of San Antonio*, and bears from *Cape Negrete* S. W. by W. (W. S. W. $\frac{1}{2}$ W.), distant 2 miles.

Port San Antonio affords good anchorage for ships of all sizes in summer, but in winter it is only useful to small vessels, which can run far in; for the N. and N. W. winds blow for a long duration, sending in very heavy seas: the bottom holds well, and the *Port* is easily entered, no invisible danger being any where. Steer for the middle of the *Bay*, and bring *Cape Negrete* in one with *Cape Nono*; you will then have 18 fathoms water, and thence run further in to 7 or 5 fathoms, and when the *Church of San Antonio* bears E. N. E. (E. $\frac{1}{2}$ N.), anchor, with your best bower out to the S. W.; moor N. E. and S. W.; but small vessels may go further in, mooring with one anchor out, and a cable on shore. The beach is sandy, and the soundings toward it gradual.

The western extremity of *Cala de la Balsa* is *Point Chincho*, of moderate height, and steep. West (W. N. W. $\frac{1}{2}$ W.) from *Point Chincho*, distant 1 mile, is *Point Robira*, low, but running out to seaward; and on a height near is a tower of the same name, the coast forming a bay between them. Off *Point Robira* is a little island, called *Pajar*, clean all round. Three-quarters of a mile S. W. $\frac{1}{2}$ S. (S. W. by W. $\frac{1}{2}$ W.) from *Point Robira* is *Point Piedras*, moderately high, and projecting. Near this *Point* is the *Island of Bosque*, of middling size, and steep-to, but at its northern end are some rocks. Outside of *Bosque* lies the *Great Conejera Island*, extending $1\frac{1}{2}$ mile N. and S., its eastern side forming a kind of open bay, with good anchorage: the northern part of *Conejera* lies $4\frac{1}{2}$ miles from *Cape Nono*, from which it bears W. S. W. $\frac{1}{2}$ S. (W. $\frac{1}{2}$ S.). *Conejera* is moderately elevated, and the surface appears even. S. S. W. (S. W. $\frac{1}{2}$ S.) from *Conejera's* southern end, distant 1 mile, is the east end of the *Island Esparto*, lying nearly East and West, three-quarters of a mile: its western end is about $6\frac{1}{2}$ miles from the northern *Peak of Bedra*. There is a small rocky island called *Estacio*, lying off the east end of *Esparto*, forming a kind of bay for small vessels, with $4\frac{1}{2}$ fathoms water: in sailing in or out, beware of a small rocky ledge off the S. E. point of *Esparto*.

About $2\frac{1}{2}$ miles W. S. W. (W. $\frac{1}{2}$ S.) from *Great Conejera* lie five small islands and some rocks: the two northernmost are called the *Redondas*, or *Round Islands*, and bear from the northern part of *Conejera* nearly W. S. W. (W. $\frac{1}{2}$ S.), distant $2\frac{1}{2}$ miles, and from *Cape Nono* W. S. W. $\frac{1}{2}$ S. (W. $\frac{1}{2}$ S.), distant 7 miles. S. S. W. (S. W. $\frac{1}{2}$ S.) from the *Redondas* is *Bleda Plana*, the channel between being separated by a chain of rocks. Near the southern end of *Bleda Plana* are two rocks above water, and a reef running out about a cable's length. S. S. E. (S. $\frac{1}{2}$ E.) of the middle of the *Island* are two shoals, almost joining one another, and frequently visible. S. S. E. $\frac{1}{2}$ S. (S. $\frac{1}{2}$ W.) from *Bleda Plana*, about one-third of a mile, is *Bleda Major*, a round island, higher than any of the others; and in the same direction is the *Southern Island La Gorra*, small, and shaped like a cap: these islands are clean all round, and have no danger near them, except what has been described. Vessels of any size may sail between each of the *Bledas*, and also between them and the *Redondas*, or between them and *Conejera*: there is also a passage between *Bosque* and *Esparto*, and *Bosque* and *Conejera*, but between *Bosque* and *Point Piedras* the channel is only fit for boats.

Two miles to the southward of *Point Piedras* is *Cala Moli*, a small bay, where vessels load with timber; and S. by W. (S. S. W. $\frac{1}{2}$ W.) from that Point, distant $3\frac{1}{2}$

miles, is *Cala Padella*, fit for vessels of a moderate size ; its entrance is narrow, curving in a semicircular form, having 9 fathoms, and from thence shoaling, as you advance, to 3 fathoms water, tolerably sheltered from all winds.

Three miles and a quarter from hence is *Cape Jucu*, and between them is the *Shoal of Cape Mataret*, with 11 feet water over it ; it lies N. by W. (*N. $\frac{1}{2}$ E.*) from the *Cape*, distant about half a mile, and must be carefully avoided, for it only shews itself, by the breakers, when there is a swell of the sea : but further North is the *Bota*, a sunken rock, constantly breaking ; this bears from the eastern part of *Bedra Island* N. by W. (*N. $\frac{1}{2}$ E.*), distant $1\frac{1}{2}$ mile.

FORMENTERA. This is an irregularly formed island ; its highest part is but moderately elevated ; the eastern part is somewhat higher than the western part ; and between them is a tract of low sandy ground, forming a sandy beach on each side of the island. There are many fine trees growing upon the island, and its population is about 1200.

The *Island of Formentera* lies to the southward of *Iviza*, *Cape Portas* being 5 miles from its most northern point. A chain of islands runs nearly in the direction of the two, the *Island of Espalmador* being midway. Between *Espalmador* and *Cape Portas* are three channels : the first is formed by *Cape Portas* and *Redonda Islands*, and called the *Freo Chico*, navigable only by small craft, on account of sunken rocks which bar up the different passages ; the second is formed by *Redonda* and *Ahorcados*, and called the *Freo del Medio*, about half a mile wide, and admits vessels of moderate burthen : this Strait shallows toward each side, but has $3\frac{1}{2}$ fathoms midway. A small reef runs from the east part of *Redonda*, having only $1\frac{1}{2}$ fathom water over it ; therefore it becomes advisable to stand on easterly, and take due care to avoid it. In passing through this channel from the westward, you must also avoid the *Barqueta Shoal*, which the sea frequently breaks over ; it bears from *Portas Tower* S. S. W. $\frac{1}{2}$ W. (*S. W. $\frac{1}{2}$ W.*), and from the *Island Redonda* nearly W. S. W. (*W. $\frac{1}{2}$ S.*), distant a quarter of a mile.

The third Channel, or *Freo Grande*, is between *Ahorcados* and *Espalmador*, with a depth of 8 fathoms in the middle, shallowing toward *Espalmador* to 5 fathoms, and toward *Ahorcados* to 3 fathoms ; but near *Negra Island* it deepens to 12 fathoms : the bottom even at this depth is clearly perceptible. Between the two *Negras*, and between them and *Ahorcados*, none but small craft can pass. Two-thirds of a cable's length, W. N. W. (*N. W. $\frac{1}{2}$ W.*) from the N. E. Point of *Little Negra*, is a rocky shoal, with only 1 fathom water over it ; but between the *Shoal* and *Point* are $3\frac{1}{2}$ fathoms.

Vessels proceeding from the westward to the Port of *Iviza* generally run through the *Freo Grande*, steering first, whatever land is made, for the *Tower of Espalmador*, bringing it to bear about East (*E. S. E. $\frac{1}{2}$ E.*), distant $1\frac{1}{2}$ mile, which having done, run through the middle of the Strait, and steer for the *Castle of Iviza*. As you advance, the *Islands Esponja*, *Malvins*, and *Dados* will become visible ; then, if with a favourable wind, run between the *Esponja* and *Malvins* on one side, and the *Dados* on the other ; but if with variable winds, or scant, pass as near the islands as convenient, or to the westward of *Esponja* and the *Malvins*, only taking care to avoid the shoal, which lies two-thirds of a cable's length N. W. by W. (*N. W. $\frac{1}{2}$ N.*) from the north end of the southern *Malvin* ; and when you are between the *Malvins* and the *Dado Islands*, bear up for the Port, leaving *Grossa* and *Botafuego* on your starboard side, and *Point Ratyada* and *Negra Island* on the larboard. Your best anchorage will be in $6\frac{1}{2}$ fathoms, somewhat nearer to *Plana Island*, with your best bower anchor to the S. W. ; then should strong gales come on from the eastward, you can make fast to the island, but with N. and N. W. winds, you should anchor out to the N. E.

Should a small vessel be bound to this Port, and, having made the *Isle of Bedra* with the wind at N. W., be able to attain the *Freo del Medio*, she should stand on for the *Island Ahorcados*, and when the Strait comes fully open, proceed through, as before directed.

But if from the Eastward, every vessel should endeavour to steer through between the *Isles of Grossa* and *Dado* : the water is deep, and the breadth of the passage three-quarters of a mile. When arrived at the south end of *Grossa*, stand on until *Botafuego* comes North (*N. N. E. $\frac{1}{2}$ N.*) ; then steer in for the anchorage, as before directed ; but no vessel should attempt the passage between the two *Dados*, for there lies a dangerous shoal ; and none, unless thoroughly acquainted with the place, should pass the *Freos*, or attempt the Port of *Iviza* by night : they should also be very careful not to mistake *Espalmador Castle* for that of *Cape Portas*.

The *Point of Espalmador*, near which the *Tower* stands, appears red, and is of moderate height. North and N. by E. (*N. by E. $\frac{1}{2}$ E. and N. N. E. $\frac{1}{2}$ E.*) from it, three-quarters of a mile, the coast becomes low, with various *inlets*, in one of which is a low flat island. The *North Point of Espalmador* is called *Puercos*, and has a small island before it of the same name: from hence the land turns E. S. E. (*S. E. $\frac{1}{2}$ E.*) for half a mile, and then South (*S. by W. $\frac{1}{2}$ W.*) one mile, low and irregular, until you reach the *Trocados*, a small channel for boats only. Nearly E. N. E. (*E. $\frac{1}{2}$ N.*) from *Point Puercos*, distant 2 miles, is the northern end of *Espardell*, or *Espuntel*; this island is about three-quarters of a mile long, and narrow, of moderate elevation, and even surface. Off its northern point lies a large rock, and at its southern end is a break of land, separated from the island by a ledge of rocks; on its western side is good anchorage at a place called *Estancia*, fit for all weathers: the depth is 13 fathoms, bringing the *Point of Mola* in *Formentera* open of the south end of *Espuntel*, and the *Island Tugomago* open with its northern end. Directly between the *Islands of Espuntel* and *Espalmador* is a shoal of three fathoms water, of considerable extent, and steep all round; vessels of large size should be careful to avoid this shoal: near it, on the *Espalmador* side, are 8 fathoms, and on the opposite edge are 10 fathoms, the marks for it being the *Tower of Portas* N. W. by N. (*N. by W. $\frac{1}{2}$ W.*), and the *Tower of Espalmador* W. S. W. (*W. $\frac{1}{2}$ S.*), or the *Isle of Bedra* seen through between the *Point* and *Island of Puercos*, and *Formentera Church* open to the westward of the little hill south of the *Trocados*.

Above 2 miles S. E. $\frac{1}{2}$ S. (*S. by E. $\frac{1}{2}$ E.*) from the *Trocados* is *Point Prima*, low, but jutting out to seaward; between, the land forms a deep Bay, at the bottom of which, between some rocks, are *Puyol's Cove* and *Creek*, and 2 cables' length from it a sandy shoal, over which the water generally breaks. From *Point Prima* the land gradually becomes elevated, running in a S. S. E. (*S. $\frac{1}{2}$ E.*) direction to *Point Carnache*, on which stands a *Tower*. E. S. E. (*S. E. $\frac{1}{2}$ E.*) from this, about $3\frac{1}{2}$ miles, is the N. W. *Point of La Mola*: this latter is low land, called the *Northern Beach*, and having *St. Augustine's Cove* within it, a small place, fit only for fishing boats; but in fair weather vessels may ride in this or the former Bay safe enough, the ground being clean, and the water deep.

Point de la Mola is high land, and continues so until you reach the South-west *Point of La Mola*, where the low shore commences, forming an extensive Bay, called *La Playa del Medio Dia*. Four miles and a half W. $\frac{1}{2}$ S. (*W. N. W. $\frac{1}{2}$ W.*) from the South-west *Point of La Mola*, is *Point Anguila*, moderately high, of even surface, and steep-to. One mile before you reach this *Point*, is the *Tower de los Catalanes*: there the low beach ends, and from thence to *Point Anguila* it is both high and rugged; a sandy flat extends from the S. W. *Point to Catalanes Tower*, the bottom not holding well, with 5, 4, 3, and 2 fathoms upon it, decreasing in depth as you near the Beach. From *Catalanes Tower* to *Point Anguila* the shore is clean, with 9 fathoms near the land.

From *Point Anguila* the coast runs N. W. by N. (*N. by W. $\frac{1}{2}$ W.*) $1\frac{1}{2}$ mile, to the *Tower of Garovaret*; and from thence nearly N. N. W. (*N. $\frac{1}{2}$ W.*) to *Cape Berberia*, all high and steep land: it then continues North (*N. by E. $\frac{1}{2}$ E.*) $1\frac{1}{2}$ mile, towards *Point Cala Saona*, which projects outwards, but is low. Three-quarters of a mile further is *Point Gravalal*, upon which is a *Tower*; between these *Points* is the *Cala Saona*, or *Saona Bay*, with $4\frac{1}{2}$ and $5\frac{1}{2}$ fathoms, a place of anchorage, if necessary, but open to the winds from the S. W. to the N. W. quarters. N. N. E. $\frac{1}{2}$ E. (*N. E. $\frac{1}{2}$ E.*), half a mile from *Gravalal*, is *Point Pedreda*, to the eastward of which are the *Cove* and *Island of Sabina*, fit only for such small vessels as can be sheltered by the island. The shore thence continues easterly nearly to the place where salt is taken in. There are three small islands lying out before this space: the land is low, but uneven, and behind are the *Lagoons* and *Salterns of St. Louis*. From hence the islands commence which run to *Espalmador*. The space between the *Trocados* and *Espalmador Tower* is commonly called *Espalmador Bay*: here is a *Port* formed within a small island, surrounded with breakers; this is fit only for small vessels, and its entrance between the rocks is dangerous. The *Island Gastavi* lies a cable and a half's length from the South *Point* of the *Espalmador Tower*. The best anchorage in this port is under cover of the *Island Espalmador*, with a cable fast on shore, and an anchor to the eastward. The coast of *Formentera* is generally clear, and in fair weather the currents commonly run to the north-eastward; but if stormy, they vary with the wind.

VALVERDE'S BANK. There is said to be a Bank of 15 or 16 fathoms, lying

4 leagues South (S. S. W. $\frac{1}{2}$ S.) from the *Island Formentera*, of considerable extent, but no danger. From its southern edge you will perceive the higher lands of *Formentera*; and during violent gales of wind, the water over this bank will appear much agitated.

MAJORCA, or MALLORCA. This is, generally speaking, a mountainous *Island*, the most remarkable hill being the *Puig de Galatzo*, a high peak to the westward, in the latitude of $39^{\circ} 36'$ N.; but on the northern side the hills become most elevated: of these the *Silla de Torrellas* and the *Puig Mayor* are the most prominent. From the centre of the island towards the south, the surface becomes much lower. Its capital city is *Palma*, situated in a bay to the S. westward: the other principal towns are *Alcudia*, *Pollenza*, *Soler*, *St. Martial*, *Andracio*, and *Bunola*. The exports consist of oil of olives, wine, spirits, oranges, lemons, almonds, capers, beans, and cheese; the latter is made from goats' milk, and much esteemed in Spain. The figure of this *island* is irregular, being longer in extent from E. to W. than from N. to S. Off its western extremity, *Point Rebagada*, in latitude $39^{\circ} 34' 25''$ N., and longitude $2^{\circ} 22' 13'$ E., is the *Island Dragonera*, bearing from *Point den Serra*, in *Iviza*, N. E. $\frac{1}{2}$ E. (E. N. E. $\frac{1}{2}$ E.), distant 50 miles. The *Island Dragonera* is $1\frac{1}{2}$ mile in length, and narrow, having two watch-towers upon it. Between it and *Majorca* there is a channel above half a mile wide in its narrowest part, with from 12 to 20 fathoms: two small islets lie within, and some rocks above water; the largest *island* is called *St. Elmo*, behind which small vessels frequently run, and anchor, sheltered from all but winds from the S. W.: this *Roadstead* is called *Pentaleo*. A little reef runs out from the north end of the *island*. *Mytyana* is the other little *island*, free from danger, and steep round. Close under *Dragonera's* N. E. *Point* lies a cluster of rocks, called *Calafates*, having shallow water near them; therefore vessels going through this passage, should give them a berth: no other danger is in the passage, with a steady leading wind; but otherwise, calms and variable winds are apt to affect you, and occasion the currents to be irregular. S. E. $\frac{1}{2}$ E. (S. S. E. $\frac{1}{2}$ E.), a full league from the *South Point of Dragonera*, is *La Mola of Andrache*, having a Bay to the northward, the entrance to which is 3 cables' length in width, with 6 fathoms water, quickly shallowing to 4, 3, and 2 fathoms; but it is only adapted to small vessels. On-shore or S. and S. W. winds commonly bring in a heavy sea: get then under the north shore, and make fast your cable on the land. There is at the entrance to the Bay a rocky *island*, called *Aguillet*, lying near the south shore, but leaving a channel for small craft. E. S. E. $\frac{1}{2}$ S. (S. E.) from *Cape La Mola*, $1\frac{1}{2}$ mile, is *Cape del Llamp*, which appears higher than the former; East (E. S. E. $\frac{1}{2}$ E.) of which, about the same distance, is *Cape Andrichol*, and S. E. by S. (S. S. E. $\frac{1}{2}$ S.) from that, is the *Island of Malgrat*; between them lies the Bay of *Santa Ponza*, running inward N. E. (E. N. E. $\frac{1}{2}$ N.) 2 miles. In this direction is a small Cove, nearly a mile within *Cape Negrette*, having at its entrance $2\frac{1}{2}$ fathoms, and decreasing in depth as you enter, fit for small vessels. To the northward of this Cove stands the Castle: the northern point of the Cove is low, but the southern point is lofty, and between both is anchorage for ships of any size, sheltered from the wind from the N. W. round by N. E. to S. E., the ground clean, and of various depths; but this anchorage with all other winds is dangerous. The Port of *Paguera* runs in toward the N. W. (N. N. W. $\frac{1}{2}$ W.), and is about 2 cables' wide at the entrance, and can accommodate 15 or 20 vessels of moderate size, moored head and stern, secure from all winds. A man-of-war may ride there in safety, for there are from 7 to 9 fathoms a little within it, the bottom sand. The S. E. are the only troublesome winds, as they usually bring in a swell of the sea.

Cape Andrichol is high, woody, steep, and of a red appearance. *Malgrat Island* is also lofty and steep, having between it and *Cape Negrette* the small *Island of Conejos*; but though the passages between these *Islands*, and also between *Conejos* and the *Cape*, are deep, yet the narrowness of the channels renders them unfit for any but small craft.

S. S. E. $\frac{1}{2}$ E. (S. by E.), distant 2 miles from *Malgrat*, is *Toro Island*: the coast between them bends inwards, and is called *Penas Rotges*, from the red appearance of the cliffs, which are elevated and steep, with deep water all along. Between *Toro Island* and *Point* are three rocks, two being close to the *Point*, and one near the *Island*: the passage between them has only 9 feet water; but *Toro Island* is so steep, that a man-of-war may go close to it. One mile and a half S. E. by E. (S. E. $\frac{1}{2}$ S.) from *Toro Island* is *Cape Cala Figuera*.

THE BAY OF PALMA. The Bay of *Palma* is formed between *Cape Cala Figuera* and *Cape Blanco*, bearing from each other nearly E. S. E. $\frac{1}{2}$ S. and W. N. W. $\frac{1}{2}$ N.

(S. E. and N. W.), distant from each other $4\frac{1}{2}$ leagues. *Cape Cala Figuera* is not so high as *Cape Blanco*, but there is no danger near it, and you may sail as near it as you think proper; near its extreme point is a *tower*, upon which signals are made by day, and lights displayed at night, to such vessels as approach. On its N. E. side is a *Cove*, and further on *Porta's Bay*; both are small, and places of little consequence. A large league from *Cape Cala Figuera* is *Cape Falcon*, before you come to which, you will meet with the little *Island of Sec*, between which and the land are 9 fathoms; and $1\frac{1}{2}$ mile beyond *Sec* is *Salas Island*, high and clean round its outer side, but with a passage between it and the land, only fit for boats. *Porroso Bay* may be said to begin at this *Island*, a place convenient for anchorage with all but winds from the S. E. to South, and with those it becomes dangerous. To the north-eastward are three *rocky islands*: you must proceed outside of these, which is clear from danger; but inside, or between them and the *main*, is no passage. One mile and a quarter beyond these is the *Southern Point* of the entrance to *Port Pi*; here you will see the *Castle of St. Carlos*, built upon a rising ground near the sea, and near it the *lighthouse*. At the entrance of *Port Pi* a frigate or smaller vessel may anchor, having a cable out to the S. E., between the two *points* which form this little *haven*, making fast to the *rocks* on each side of the *Bay*; you will then have from 16 to 18 feet, well-sheltered from the sea. This place will readily be known by the *lighthouse* on the S. W., and a *tower* on the N. E. *Point*, called *Porrianas Tower*, being built square, and not unlike a *lighthouse*; but if not intending to stop at this place, you will proceed on to the northward, and anchor in front of the *Lazaretto of Palma*, in from 10 to 6 fathoms, bringing the *Cathedral Church of Palma* N. E. by E. (E. N. E. $\frac{1}{2}$ E.), and the *Lazaretto* in one with *Belver Castle*, bearing W. N. W. (N. W. $\frac{1}{2}$ W.). Smaller vessels anchor within this station; for with the *Castle* W. N. W. (N. W. $\frac{1}{2}$ W.) the water shallows gradually, until the *lighthouse* comes in a line with the northern corner of *St. Carlos Castle*: then your ship will be about a cable's length from the shore, and in $4\frac{1}{2}$ fathoms, good holding ground; it then decreases fast to $2\frac{1}{2}$ fathoms.

The *old Arsenal* was situated between *Port Pi* and the *Lazaretto*, in a small *creek*, the walls of which remain, together with a building used for preparing fish. In the western part of the inclosure is a small house bearing in one with the *Castle of Belver*, and in the opposite direction is a *shoal*, called *Cuervo Marino*, which runs out from the shore a cable's length, having on its outer edge $2\frac{1}{2}$ fathoms, and decreasing towards the land: this is the only dangerous spot hereabout.

When anchoring at the *Lazaretto*, moor N. W. and S. E., for the S. W. and south winds drive in a heavy sea; small vessels run on towards the *Mole*, at the point of which are $2\frac{1}{2}$ fathoms, leaving the *Mole* on the starboard side: they will then find the water shallow directly. The *Bay of Palma* is deep all over, and in general sandy ground, with from 18 to 27 fathoms; but on the eastern side, between the *Capes Enderrocat* and *Regana*, it becomes *rocky*. In coming from the westward, you may run along the western side of the *Bay*, clear of all danger, keeping only at a proper distance, until you perceive the *Castle of St. Carlos*; and if off *Cape Blanco*, steer directly for the *Road*, for the water is every where deep. *Cape Blanco* has a *tower* upon it, is rather elevated, and appears white; from thence to *Cape Regana* it continues high, and looks red; it then slopes down towards *Cape Enderrocat*, where also a *tower* is situated, and bends in circularly, forming a sandy beach towards the *Island* and *Point of Galera*, thence continuing low land as far as the *Mole*; but except near the shore, the water is all the way deep.

From *Cape Blanco* the coast runs eastward 3 miles to *Cala Py*, a *Cove* little used, and 3 miles further to *Cape Gros*, and thence 2 miles to *Point Negra*, upon which is the *Tower of Estedella*. N. E. $\frac{1}{2}$ E. (E. N. E. $\frac{1}{2}$ E.) from *Point Negra*, $1\frac{1}{2}$ mile, stands the *Tower of Rapita*. The coast here turns round to the southward toward the salt-ponds: there is a *rock* above water near *Point Negra*, and another at *Point Salinas*; they are distant from each other $2\frac{1}{2}$ miles; the land between is low. Further on are several *rocky islets* at the mouth of *Port Compos*, which is shallow, and difficult to enter, useful only to small craft. The *Bay* runs about a mile into the country, and at the western *point* of entrance stands a *watch-tower*.

About $3\frac{1}{2}$ miles S. E. (S. S. E. $\frac{1}{2}$ E.) from *Port Compos* lies *Cape Salinas*, the southern *Point* of *Majorca*, in latitude $39^{\circ} 15' 45''$ N. and longitude $3^{\circ} 5' 3''$ E. It is low, woody, and has the *Tower of Negosta* upon it, from which it slopes gradually to the water's edge, where a small *reef* runs out, about the length of half a cable; it thence deepens to the southward, having, at 3 cables' length from it,

4 fathoms, increasing to 9, 18, and 23 fathoms, the latter depth being midway between *Cape Salinas* and the *Island Conijera*, distant from each other 6 miles.

CABRERA ISLANDS. *Conijera* is the highest of the *Cabrera Islands*, extending from N. N. E. (N. E. $\frac{1}{4}$ N.) to S. S. W. (S. W. $\frac{1}{4}$ S.) nearly 1 mile. Off the N. N. E. Point of *Conijera* are 4 small rocky islets: the three nearest are called the *Planas*; the furthest off is named *Furadade*, and is higher than the others. Between these islets are small channels, where barks may go through. To the southward of *Conijera*, and between that island and *Redonda*, is a passage large enough for any vessel, with from 9 to 11 fathoms water. One-third of a mile South (S. S. W. $\frac{1}{4}$ S.) from *Redonda* is *Cape Ventosa*; the channel between is deep. On the east side of *Cabrera* is a small island called *Bleda*; it is about $1\frac{1}{2}$ mile from *Cape Ventosa*, and lies close to the land: near it is the *Cove La Olla*, fit for barks. Off the S. E. Point of *Cabrera* is *Imperial*, another island, somewhat larger than the former; there is a narrow passage between, fit only for small craft to go through. On the south side are four or five islands, all having deep water-channels round them; those near *Cabrera* are the highest.

Cape Ansiola is the southern point of *Cabrera*, to the northward of which is a cove fit for barks only. Three-quarters of a mile from the *Cape* is *Cape Picamoscas*; about one mile further, *Cape Galeota*: and three-quarters of a mile more will bring you to *Cape Lebeche*, a little way S. S. E. (S. $\frac{1}{4}$ E.) of which is the *Bay or Haven of Cabrera*. Vessels intending to go into the *Bay of Cabrera*, should steer for *Cape Lebeche*. At the entrance is the *Bishop's Cave*, which you will leave on the starboard: you will then see *Point Creveta*, the eastern point of the *Bay*, and near the *Point* a small *Fort*; the channel is a cable's length in breadth, and has from 18 to 23 fathoms within it. Beyond *Creveta Point* is *Castellar*, and further on some fishermen's houses: opposite these you will anchor in from 7 to 9 fathoms; if necessary to moor with a fast on shore, it should be on the eastern side of the *Haven*; or swing with two anchors, the place being wide and clear from danger, sheltered also sufficiently from the winds. But in making the *Haven* with N. W. winds, great care will be requisite when *Cape Lebeche* bears from that quarter; for from thence to the anchorage you will be subject to violent land-squalls, and with the wind at East, you will also feel their effect, though commonly not equally strong.

To the East of *Point Creveta* is *Cala Gandus Bay*, clean and deep, but open to the North and N. W. Be cautious you do not mistake this latter opening for the *Bay of Cabrera*; to prevent which, always make for, and keep close to, *Cape Lebeche*, running along the starboard shore. *Cabrera Island* is high and flat, generally clean all round, but abounding with sea-weed. Water is scarce, and difficult to obtain. It is uncultivated, having occasionally a few inhabitants from the *Castle*, who keep a few goats upon it. The tides about it are very irregular, and the currents strong. *Point Ansiola* is situated in latitude $39^{\circ} 7' 15''$ N., and longitude $2^{\circ} 58' 0''$ E. From the middle of *Cabrera* to *Cape Salinas* the distance is about 10 miles, in a N. E. by N. (N. E. $\frac{1}{4}$ E.) direction.

From *Cape Salinas*, distant $1\frac{1}{2}$ mile, E. N. E. (E. $\frac{1}{4}$ N.), lies *Los Baos*, a projecting point; and 2 miles further is *Cala Santani*, known by a tower standing on its eastern point: this place is narrow and shallow, therefore fit only for small craft; it is also open to the S. E. winds. Nearly 2 miles E. N. E. $\frac{1}{4}$ E. (E. $\frac{1}{4}$ S.) from *Santani* is *Cala Figuera*, and $2\frac{1}{4}$ miles further on, *Cala Mondrago*, two small ports, of little utility to navigation.

One mile and a half N. E. (E. N. E. $\frac{1}{4}$ N.) from *Cala Mondrago* is *Port Petra*, known by a square *Fort* on the S. W. point of entrance, there being none near it of a similar form. The channel in is about a cable's length in width, every where clean; and close to the points, a depth of 15 fathoms. If a man-of-war intends anchoring here, she should make the *Cova Figuera* on the eastern shore, dropping her anchor in 5 or $4\frac{1}{2}$ fathoms; but small vessels may go further in, though not to the northward, for there it shallows fast from 3 to 1 fathom. Frigates should moor with a fast on shore, and an anchor out to the east; and if more than two vessels, they will be obliged to moor head and stern on the east shore, for there will not be room for them to swing. Small vessels get an anchor out to the west, and a cable fast to the foot of *Cova Figuera*, or else further up the *Bay*. Wood may be obtained on the starboard side of the entrance, but no good water.

This *Port* cannot be recommended in bad weather, on account of the narrowness of its entrance, and the range of perpendicular rocks which line the coast. The sea at those times will be apt to drive a vessel on shore, unless she enters under a press of sail, and

lowers them directly she has entered between the points; for she cannot run up the Bay. It is wholly open to the south winds.

CALA LONGA. One mile and a half N. E. (*E. N. E. & N.*) from *Point Petra* is *Cala Longa*. This place is difficult to discover, on account of the evenness of the surrounding land. The only objects to distinguish it, are a *Battery*, and a red house on its south-western point: under this point is a shoal, with 1 fathom water over it, lying within two boats' length of the land. This place is fit for frigates, which may ride in 4 and 5 fathoms, and should moor head and stern, west from the entrance; for there is not room enough to swing round. East and E. S. E. winds are most troublesome.

PORT COLON. Four miles to the northward is *Port Colon*, and between are *Cala Mityana*, *Brasi*, and *Nao*, small Coves, of little utility. *Port Colon* is narrow at the entrance, with good depth of water; but it shallows rapidly within, and small vessels which resort here, must be obliged to anchor, exposed to S. W., South, and S. E. winds, which never fail bringing in a heavy sea. If, however, they draw not more than 6 or 7 feet, they may run to the westward into 9 or 8 feet, and be perfectly secure. This place may be known by the tower on its north-eastern point, close to which are 9 fathoms water.

Seven miles N. N. E. & E. (*N. E.*) from *Port Colon* is *Cala Manacor*; between these are several small Coves, of no use to the mariner, and fit only for boats to run into.

Cala Manacor may be known by the tower over its western point. The land round it is very low; its entrance is open to the south-eastward, and the Bay runs in S. W., N. W., and N. E., affording good shelter; but its narrowness and little depth render it only fit for small vessels. From hence you will pass some points of land, and about four miles N. E. & E. (*E. N. E. & E.*) from *Manacor*, you will reach *Point Amer*, upon which a Fort stands, somewhat inland. To the northward of this Point the anchorage is good, in from 9 to 12 fathoms, with winds from the S. W. to N. W., the bottom being sandy, and holding well, having plenty of room, should it blow on shore, to stand to the northward, or weather the Cape.

Four miles from *Point Amer*, N. by E. & E. (*N. E. & N.*), is *Cape Rathe*, low, dark, and running a little way out to the seaward: between the Point and Cape is the Bay of *Arta*, within which is the little Port of *Vey*, shallow, and of little use to navigation, open also to the S. W. and S. E. winds: it may be distinguished by the tower to the westward. N. E. & E. (*E. N. E. & E.*) from *Cape Rathe* is *Cape Bermejo*, somewhat more elevated. About 1½ mile N. N. E. (*N. E. & N.*) from hence is *Point Fon de la Cala*; and 2½ miles further, in nearly the same direction, is *Cape de Pera*, the eastern point of *Majorca*, in latitude 39° 42' 20" N., and longitude 3° 30' 18" E.; it is rather high, and projects out considerably, having a tower on its top. Half a mile S. S. W. (*S. W. & S.*) from the Cape is its southern point, forming between them the Bay of *Ratyada*, where small vessels find shelter from S. W. and N. W. winds: there is also water enough for large ships; but when the winds are from the N. E. or S. E., getting from thence will be attended with considerable difficulty.

N. W. & W. (*N. N. W. & W.*), distant 2 miles from *Cape Pera*, is *Cape Freu*, of dark appearance, but steep-to: near its extremity is a kind of hill, which at a distance looks like an island. On the south side of the Cape is a remarkable Cave, pierced almost through by the waves; and on the Point is the Tower of *Son Yaumel*. Two miles and a half W. N. W. (*N. W. & W.*) from *Cape Freu* is *Cape Falconera*, upon which is also a tower, situated upon a steep point; between is *Point Buch*: these points form the Haven of *Marsoe*, sheltered from S. E., S. W., and N. W. winds, but from the N. W. to the East it is quite open: should these winds come on, you must get immediately under sail, for the sea will generally begin to set in before the wind is observed. N. N. E. & N. (*N. E. & N.*) from *Cape Falconera*, about 2 cables' length, is the small Island of *Lubarca*; between them are 9, 10, and 11 fathoms. Further on, three-quarters of a mile, is *Fon Salada Point*; 1½ mile W. N. W. (*N. W. & W.*) from which is the Watch-tower of *Son Morey*; and nearly in the same direction, one mile beyond that, is *Cape Faruch*, the southern Point of the Bay of *Alcudia*.

BAY OF ALCUDIA. *Cape Faruch* is of moderate height, the land behind rising considerably. Within the Cape is another Point, and further on *Cala Mata*, from which the coast runs S. W. by W. (*W. S. W. & W.*) 2½ miles towards *Pt de la Entrada*, and thence rounds N. Westward to the small Island of *Porros*, distant 4½ miles; 3½ miles beyond which is the entrance to *Pons*, or the *Albufera*, a Lake of large extent: the whole is low land, but clean, having anchorage all the way, a cable's length off-shore, in 3 fathoms, and further out in from 9 to 23 fathoms. East from the Pons, or entrance

to the *Lagoon*, $1\frac{1}{2}$ mile, is the *Quay of Alcudia*, the shore between bending circularly inward: here on an eminence stands the *Torre Major*, and not far from it a *battery* in ruins. Near $1\frac{1}{2}$ mile further is the little *Island of Alcana*; beyond which, about half a mile, is *Point Torrens*: there is no passage between the *Island Alcana* and the shore, and it is shoal water both on the east and south sides of the *Island*. Two miles and a quarter N. E. from *Alcana* is *Cape Minorca*, the northern *Point of Alcudia Bay*, bearing from *Cape Furuch* N. W. $\frac{1}{2}$ W. (N. N. W. $\frac{1}{2}$ W.), distant $6\frac{1}{2}$ miles.

To anchor with large ships in the *Bay of Alcudia*, it is advisable to run midway between *Alcana* and *Torre Major*, 3 or 4 cables' length from the land, in 5, 6, and 7 fathoms, fine gravel; smaller vessels may go opposite the *Tower* in $4\frac{1}{2}$ or $5\frac{1}{2}$ fathoms, having gravel and sea-weeds, mooring N. W. and S. E.; or still further in, between the *Tower* and *Pier*, in $2\frac{1}{2}$ or $1\frac{1}{2}$ fathom, but the water becomes still shallower as you advance. The *Church of Alcudia*, and some of the highest buildings in the *Town*, which is about three-quarters of a mile up the *Bay*, may be seen from the *Road*. This *Bay* is open from the N. E. to the East, which winds drive in a considerable sea; but it is to be preferred to *Pollenza Bay*, which lies on the other side of the *Peninsula*, being clearer of dangers, less subjected to the winds, not so much frequented by squalls from the mountains, and much easier to take when it freshens from the North or N. W. In sailing along the northern shore for *Alcudia*, there is no danger in the way, but deep water, except, as before mentioned, at the *Island of Alcana*; no vessel should come nearer that part than the distance of 2 cables' length.

From *Cape Minorca* the coast bends inward; then, with various inflections, outward again toward *Cape Pinar*, a distance of two miles. *Cape Pinar* is lofty, and of a reddish appearance, with some *pine-trees* on its summit; but *Cape Minorca* is higher than *Cape Pinar*, more pointed, dark, and bare, being cut perpendicularly down half way, the other half being covered with trees.

THE BAY OF POLLENZA. From *Cape Pinar* N. W. (N. N. W. $\frac{1}{2}$ W.) distant three-quarters of a mile, is *Point Negra*, which, with the opposite *Point of Endosagua*, form the entrance to *Pollenza Bay*. *Point Negra* is the northern extremity of the *Peninsula*, from which the coast turns nearly S. W. by S. (S. W. $\frac{1}{2}$ W.). Two large miles from *Point Negra* is *Point Grossa*, and further on *Point Tabarich*; between the two former points stand the *Tower* and *Chapel of Notre Segnora de la Victoria*, on a peaked eminence near the sea. W. by S. (W. $\frac{1}{2}$ N.) from *Point Tabarich*, one mile, is *Point Manresa*; from which, W. by S. (W. $\frac{1}{2}$ N.) three-quarters of a mile, is *Port Ollas*; between them is the *Town of Alcudia*, standing half a mile within the shore of *Pollenza*, and three-quarters of a mile from that of *Alcudia*. This was formerly a place of much importance, but latterly it has greatly declined; at present it is said to have a population of about 1000. *Port Ollas* is situated to the westward of the *Citadel*, and only fitted for small vessels drawing less than $2\frac{1}{2}$ fathoms, which is the depth where the shelter is good; but N. W., North, and N. E. winds drive in a considerable surf. From *Ollas* the coast runs N. $\frac{1}{2}$ E. (N. N. E.), then turns circularly round to the eastward, and finally S. E. $\frac{1}{2}$ S. (S. S. E.) to the *Point and Castle of Pollenza*: near the *Point* are 3 fathoms water. To the eastward, one mile, is *Anipanoa*, and about the same distance further, the *Point Viento*, near which is the *Island Formenton*: there is no passage between it and the land, except for *boats*. From hence the shore runs nearly E. by N. $\frac{1}{2}$ E. (E. N. E. $\frac{1}{2}$ N.) to *Point Endosagua*, the northern point of the *Bay of Pollenza*.

The *Bay of Pollenza* is capable of containing ships of the largest size; but if many of them were to resort here together, it would not be large enough to afford them shelter: a considerable portion would be exposed to the E. N. E. winds; but a great number of small vessels may be conveniently accommodated there. In entering, you will see to the S. Westward a *point* with a *battery* upon it; and further back, situated upon an eminence, the *Castle of Pollenza*. If your ship be large, the best place for anchorage will be about 2 cables' length west of the *Point of Castle Pollenza*, in from $5\frac{1}{2}$ to $7\frac{1}{2}$ fathoms, sandy ground: a frigate may run into $4\frac{1}{2}$ or $3\frac{1}{2}$ fathoms, and small vessels further North to $3\frac{1}{2}$ or 2 fathoms; but in the former depth the stones and muscles at the bottom are apt to cut the cables. With S. W. winds, which sometimes blow in strongly, making a short sea, and preventing your boats carrying out the anchors, you should be careful in time to moor N. W. and S. E., so that your vessel may ride equally on each anchor; and in making for the *road*, beware of the squalls which occasionally come down from the adjacent mountains with such violence, that a ship may be dismasted, or even upset.

A little westward of *Point Endosagua* is a small *Cove*, N. E. $\frac{1}{2}$ N. (N. E. by E. $\frac{1}{2}$ E.) 3 miles from this *Point*, is *Cape Formenton*, the northernmost land of *Majorca*; it is

high, and clear of dangers; but projects out a considerable way into the sea, and when seen 8 or 10 leagues off, appears like several islands. *Cape Formenton* is in latitude $39^{\circ} 57' 15''$ N., and longitude $3^{\circ} 17' 58''$ E.

From *Cape Formenton* W. S. W. (*W. $\frac{1}{2}$ S.*), distant 2 miles, is *Cape Catalonia*; on the eastern side of which is *Cala Figuera*, a Cove, into which the sea drives heavily, and therefore of little use. W. 14° S. (*W. $\frac{1}{2}$ N.*) from the Cape, about 8 miles, is the ruin of the old *Castle of Pollenza*; and further on the *Cove of Pa del Pinol*, of little use. Two miles and a half from *Pa del Pinol*, W. by S. (*W. $\frac{1}{2}$ N.*) is *Point Beca*; and about the same distance from the latter is *Single del Py*: 4 miles further is the *Island of Morteret*. Seven miles W.N.W. (*N. W. $\frac{1}{2}$ W.*) from *Single del Py* is *Point la Corta*; before you come to which, near a small island, is *Cala Caldere*, too shallow for the use of shipping: on its east point is the *Tower of Baca*. The coast from *Point la Corta* runs S. W. by W. (*W. S. W. $\frac{1}{2}$ W.*) past the *Towers of Forat* and *Torre Seea* to *Morro de la Galera*, near the Point of which is a rocky island: in the same direction, three-quarters of a mile from this, is the *Tower of Picada*, which stands on the N. E. entrance to the *Port of Soller*.

PORT SOLLER. This place is narrow, and somewhat difficult to discover; but mariners acquainted with the coast, will know it by the *Tower of Aycate*, which is situated at the bottom of the Bay, and may be seen when you are abreast of the channel in. This *Port* is deep, and would be of great utility to navigation, if it was open to another point of the compass; but the sea rolls in so heavily with North and N. W. winds, that no vessel can be considered safe within it, in winter; and it should be attempted, in summer, only in cases of the greatest emergency.

It is reported that a bank of considerable extent lies about 4 leagues to the N.N.W. (*N. $\frac{1}{2}$ W.*) of *Port Soller*, in latitude $39^{\circ} 56' 30''$ N., and about 31 miles West (*W. N. W. $\frac{1}{2}$ W.*) from *Cape Formenton*, some parts of which have been represented as dangerous, with only from 11 to 12 feet water over it. This the natives know nothing of; but some fishermen of *Soller* speak of a bank thereabouts which they fish upon, with from 36 to 72 fathoms water upon it. Its existence and position are therefore equally doubtful.

S. W. $\frac{1}{2}$ S. (*W. S. W. $\frac{1}{2}$ S.*), $3\frac{1}{2}$ miles from the north-western point of *Soller*, is the *Tower of Dea*; some high rocks are within this space, lying close under the land. Six miles further, W. S. W. $\frac{1}{2}$ S. (*W. by S.*), is the *Point of Caballo Bernat*, having a rock near it; $2\frac{1}{2}$ miles from which is *Point Algar*, having under it a rocky island; the coast continues in nearly the same direction to *Cape Groser*. One mile and a half from *Point Algar* is the *Canada of Estellans*, a small Cove with an Island at its entrance, shallow, and too open to the north winds to be frequented. Two miles further is *Evangelica Tower*, and beyond it, 2 good miles, the projecting *Point of Barrancar*, from whence a S. W. $\frac{1}{2}$ W. (*W. S. W. $\frac{1}{2}$ W.*) course will take you to *Cape Groser*, close under which are two rocks: they are free from danger, and have deep water round them. The shore now turns S. W. by S. (*S. W. $\frac{1}{2}$ W.*). One mile from the Cape is *Point Rebasada*, opposite to which is the northern point of the *Island Dragonera*, already described.

GENERAL REMARK.—The north-west coast of *Majorca*, from *Dragonera Island* to *Formenton*, is destitute of any good harbour or place of safety; the land is generally high, steep-to, and clear of hidden rocks or dangers; yet it is exceedingly hazardous with N. and N. W. winds, a heavy sea driving toward the shore, where getting becalmed, under the high lands, you will be forced onward, and inevitably wrecked; therefore it will be always proper to keep to the northward in passing, with good sea-room. The places already described may sometimes shelter a small coasting vessel, but can afford no security to ships of a larger size. The tides about *Majorca* are very irregular, rising and falling a foot or more, according to the prevailing wind.

MINORCA, or MENORCA. This is the second of the *Balearic Islands*, and lies in a W. N. W. and E. S. E. (*N. W. $\frac{1}{2}$ W.* and *S. E. $\frac{1}{2}$ E.*) direction, being 28 miles long, and 8 or 9 miles broad, its S. Western shores being somewhat concave. The surface is uneven, but its only remarkable mountain is *Toro*, standing inland near the centre of the island. Its principal harbours are *Port Mahon*, *Forcellis*, and *Ciudadella*: the first of these is situated on the eastern part of the *Island*, *Forcellis* or *Fornelles* on the northern coast, and *Ciudadella* at the west. Its exports consist of wines, wool, cheese, olives and olive oil, salt, honey, fruit, and vegetables. The sand on the shore frequently contains red coral, and the fishermen oftentimes bring up large pieces of the white kind in their nets. At all times fish are plentiful.

Cape Dartuch, which is the south-west point of the *Island of Minorca*, lies in latitude $39^{\circ} 56' 0''$ N., and longitude $3^{\circ} 51' 0''$ E., is distant from *Cape Formenton* about twenty-

six miles, bearing E. a little S. (*E. S. E. a little easterly*); it is low and flat, yet with deep water close to it, there being 16, 17, and 18 fathoms 2 cables' length from the land. The shore gradually rises, and runs E. by S. (*E. S. E. $\frac{1}{4}$ S.*) toward a *Tower* called *Dartuch*, 4 miles distant; in this space are several small *points* and *coves*, but none fit for shipping. Near this *Tower* is a *rock* above water. The land hereabout is higher than the other part of the coast, and appears of mixed colours, white and red. A *shoal* is said to lie off *Point Prima*, distant half a mile, and bearing S. $\frac{1}{4}$ W. (*S. S. W.*), and E. S. E. $\frac{1}{4}$ E. (*S. E. $\frac{1}{4}$ E.*) from *Cape Dartuch*, which the sea breaks over, and must be carefully avoided, being dangerous; between it and the shore coasters frequently pass, but they are well acquainted with the navigation: such *channel* should not be attempted by strangers. One mile and three-quarters E. by S. (*E. S. E. $\frac{1}{4}$ S.*) from *Dartuch Tower* is a *point* running outward; and nearly N. E. (*E. N. E. $\frac{1}{4}$ N.*) from that is *Cala de Santa Galdana*: this is considered the best port on the south coast of *Minorca*. Vessels of moderate size may run in here, and lie sheltered from all but west winds, as these send in such a heavy sea, that renders it extremely hazardous; for though the ship rides in 3 $\frac{1}{2}$ fathoms, on a bottom of sand, yet from the anchorage inward the shore shallows rapidly.

From *Santa Galdana* the land becomes lower, and you will pass several *Coves*, together with the *Rivers Treboluyer* and *Son Bou*, neither of which affords refuge to mariners. There are also two small *islands*, one to the westward, the other to the eastward of *San Bou River*. Inside the latter is a *sandy flat*, with a *lake* behind it, and further on the *Cove* and *Tower of De Wall*, above 1 $\frac{1}{2}$ mile from which is the *Penas*, or *Cliffs of Alayor*: this is about 9 $\frac{1}{2}$ miles E. S. E. $\frac{1}{4}$ S. (*S. E. $\frac{1}{4}$ S.*) from *Cala Gandana*, and appears of a red colour, high and steep-to, having a *tower* upon it. To the eastward are other small *coves*, of no utility to navigation. Seven miles and a half from *Penas Alayor* is *Beni Beca Cove*, from which, one full mile inland, stands the *tower* where signals are made of the appearance of ships to the southward; and these are answered by the signal-tower at *Mahon*. The *Cove of Beni Beca* is useless, and has two *rocks* before its entrance. S. $\frac{1}{2}$ E. (*S. by W. $\frac{1}{4}$ W.*) from the above *Signal Tower*, and about 2 cables' length from the shore, is the *Caracol*, a rocky shoal, appearing at low water, and always breaking when the water is above it; the *channel* between it and the land has 3 and 4 $\frac{1}{2}$ fathoms water, and near it to the southward are 7 fathoms. The little *Cove of Beni Aucolla* is to the eastward, and has a rocky island near it. The shore now becomes high, and is called *Esquexos*, as far as *Point Cosa de Corps*; half a mile from which is *Point Algaret*: between these *Points* is *Sandy Bay*.

THE ISLAND OF AYRE is to the southward, full three-quarters of a mile: its N. W. part is low, but it rises considerably to the south-eastward, and is steep-to, for vessels may pass almost close to it. Between the *Island* and *Minorca* is a good *channel* with 6 $\frac{1}{2}$ fathoms. Keep midway, for it shallows both toward the island and toward the shore. Some *sunken rocks* lie near the inner part of *Ayre*; and one above water, off its north-east point, or *Cape Levant*.

Along the southern side of *Minorca*, from *Dartuch* to *Beni Beca*, vessels may anchor, with northerly winds, in from 15 to 18 fathoms. There is a remarkable hill situated far inland, having a *convent* on its summit, called *Toro*; this is in latitude 39° 58' 20" N. and longitude 4° 11' 15" E. The mariner should endeavour always to keep this a little in sight above the shore land; for if he either loses sight of it, or if the greatest part of the hill becomes visible, the ship will be on rocky ground.

With winds from the N. W. to the N. E. there is good anchorage all the way from *Beni Beca* to the west part of *Ayre*, in from 14 to 22 fathoms, sandy bottom, and not far out; but care must be taken to avoid the *Caracol Shoal*, already described. The best place for riding will be to the east of the shoal, when *Alayor Tower* comes over *Cape del Fons*.

N. E. by E. (*E. N. E. $\frac{1}{4}$ E.*) distant 1 $\frac{1}{2}$ mile, from *Point Algaret*, is *Cala Del-caufa*, having a small *island* at its entrance, behind which coasting vessels sometimes run for shelter; but the place is hazardous: for when the wind comes from the northward, the swell of the sea is prodigious, and such that the strongest fasts are ineffectual to resist its violence. About N. E. by N. (*N. E. $\frac{1}{4}$ E.*), half a mile further, is *Cape Prima*, from which a small reef of rocks stretches out. *Cala Rafalet* lies a little further on, but is of no utility to navigation. One mile N. by E. (*N. N. E. $\frac{1}{4}$ E.*) from this *Cove* is *Point del Islotes*, from which also a small reef extends, and beyond that is *Cala San Estevan*, or *St. Stephen's Cove*, where there is depth sufficient for vessels of 200 tons; but north winds are dangerous and trou-

blesome, and any winds from the N. E. to the S. E. drive in too great a sea for a vessel, once in, to get out again. On the northern shore are the *Ruins of Fort St. Philip*, now formed into batteries, round which *Point* is the entrance to *Port Mahon*. All the way from the *Island of Ayre* to *Port Mahon* the ground is clean, the *Points of Prima* and *del Islotes* excepted, and vessels may chuse their own distance from the shore, being deep water all the way.

PORT MAHON. This is the principal *Port* in the *Island of Minorca*. Its entrance from *Point St. Philip* to the *Point* opposite is above a quarter of a mile wide, but further in, when abreast of *Fort Philip*, it is much narrower. Captain W. H. Smyth says, "the land on the *North* side of this harbour is extremely barren, producing little or nothing but myrtles, great quantities of which are used in the tanneries of *Mahon*, breaming of vessels, and providing ships with brooms. The *South* side assumes a better aspect, being in a good state of cultivation, laid out principally in gardens, orchards, and orange-groves, which afford a plentiful supply of refreshments for a fleet. According to the Mathematical Master of the College at *Georgetown*, the *Parade* at *Georgetown* is in latitude $39^{\circ} 52' 55''$ N., and longitude $4^{\circ} 22' 0''$ E."

To enter *Port Mahon*, the mariner should always endeavour to bring the three rocks lying off *Cape Mola* in one, until he gets the mouth of the harbour open; or, if at a distance from it, let him bring *Mount Toro* to bear N. W. $\frac{1}{4}$ W. (N. N. W. $\frac{1}{4}$ W.), which will carry him to the entrance; and if, with off-shore winds, he chuses to anchor before it, let that mountain be brought in the middle of the opening, and *Cape Mola* N. W. $\frac{1}{4}$ W. (N. N. W. $\frac{1}{4}$ W.); he will then have 17 fathoms water, sandy ground, there waiting an opportunity to enter. The mark for sailing into or out of the harbour, is the large *Farmhouse of San Antonio* just open of the *Lazaretto Point*, bearing N. W. $\frac{1}{4}$ N. (N. by W. $\frac{1}{4}$ W.); this mark will lead clear of the rocks at the entrance, and take you in 8, 9, and 10 fathoms water: when you are within these rocky points, keep mid-channel, pass *Quarantine Island*, and anchor before you reach *Hospital Island*, in from 13 to 6 fathoms, good ground, and secure from all winds.

The following directions for making the harbour are from *Tofino*.—In taking the *Harbour of Mahon* with a leading wind, the only thing necessary is to stand along the middle of the entrance, until the ship has arrived within *Point Philipet*, leaving it on the starboard side, and on the larboard the point on which stand the ruins of *Fort Philip*, among which some low batteries are still preserved. Having cleared these points, vessels of any size may run very near either shore of the harbour, the depth close under both being $4\frac{1}{2}$ fathoms, increasing to 11 and 16 fathoms in the middle; but it is common to chuse the southern shore, running between it and *Quarantine Island*. When arrived at *Pedreria Cove*, which is opposite to the *Lazaretto*, if it be with a ship of the line, or a frigate, it will be necessary to keep pretty close to the south shore, in order to pass between it and *Isla del Rey*, or *Hospital Island*, and the *Hat Island*, which is only a large rock to the westward of it. You may pass between these two *Islands*: the least depth in this channel will be $4\frac{1}{2}$ fathoms; but the passage is narrow, and should not be attempted by those who are unacquainted with the ground.

Having passed both the above *Islands*, you may boldly advance to either shore, and run along within the distance of the length of half a cable, on the south side, up to the *Town of Mahon*; and on the opposite side, abreast of the *Island*, where lies the sheer hulk, and off the *Arsenal* and *Dock-yard* adjoining, which are connected to the *Island* by a bridge at its N. W. point. Here you may come to an anchor in from 5 to $6\frac{1}{2}$ fathoms, good ground, and moor N. E. and S. W.

In taking the harbour with scant or contrary winds, from the N. E. round by N. W. to the S. W., attention must be given to a shelf of rocks, stretching to the southward of *Mola Point*, on the north side of the entrance, and to the distance of one-third of a cable, where the depth is 3 fathoms, quickly increasing further out. Equally to be regarded is a reef stretching out from *Point Philipet* more than half a cable to the S. E. (S. S. E. $\frac{1}{4}$ E.), where the depth is 3 fathoms, and quickly increases to 4 and $4\frac{1}{2}$ fathoms. On the opposite side from *Point St. Philip*, another reef extends half a cable out to the E. N. E. (E. $\frac{1}{4}$ N.). The water breaks over these three reefs, when there is even but little swell, to one half their length; but when there is much sea, it breaks entirely over them. Hence it is, that when the entrance of the harbour is seen obliquely, with the points in a right line, or nearly so, the whole seems to be one continued shoal. Close under, and a little above the middle of the site of *Fort St. Philip*,

at a spot called *Es Redo*, is another *shoal*, extending about one-third of a cable's length from the shore, on which the sea never breaks, but during a violent gale from the north or north-east; on which account it is dangerous, particularly in entering the harbour with the wind at S. W.; because when it is scanty, it is necessary to haul up as much as possible to the south shore of the harbour, where that ledge lies. Should the wind be either too unfavourable or too strong to allow a vessel to weather all these *shoals*, she may come to anchor between them, or further out, in 18, 23, or 27 fathoms, on good ground: it is, however, to be observed, that in such a position, on the outside of the *shoals*, there is always a great swell when the wind blows fresh from the north. In *Port Mahon* there is excellent water to be had at either of the *Coves*, where the water is so deep, that ships of 300 or 400 tons may lie alongside of the rocks; but there is no possibility of getting out of the harbour without a leading wind.

Cape Mola, which may be considered the N. E. point of the *Port*, is moderately high, and perpendicularly steep-to: near it are the three high *rocks* which have been before alluded to. According to Captain Smyth, this *Cape* lies in latitude $39^{\circ} 52' 45''$ N., and longitude $4^{\circ} 24' 15''$ E.; the variation in 1812 being $19^{\circ} 36' 30''$ W. Round the *Point* is a kind of *open Bay*, and on the land is a *Tower* for signals, communicating with the *Town*. At a little distance you will have 12 fathoms water. E. N. E. ($E. \frac{1}{4} N.$) three-quarters of a mile from this *Bay* of *La Mola*, is *Point del Espero*: from hence N. N. W. $\frac{1}{4}$ W. ($N. \frac{1}{4} W.$) about $1\frac{1}{2}$ of a mile, is *Cape Negro*, between which are *Point Aquillas* and the *Cove of Freos*, having several *rocks* within it, near the land.

Further on to the N. N. Westward are the *Mesquitas Coves*, with a small *sandy beach*, but little frequented. Before their entrances lie the *Mesquita* and *Bombarda Rocks*, both above water, and resembling the hulls of ships, keel upwards; the southern one is foul, and the sea breaks over it. The whole of this part of the coast is *rocky*, and therefore vessels should not anchor there, unless in summer, and in cases of emergency. *Benillanti Cove* is to the northward with the *Points of Galera*, near which is a *rock* above water, and *La Bufera*, the southern point of the *port* of that name, or by some called *Grao*, where small vessels may run in; but it is shallow, and has some *sunken rocks* at its entrance: take care, therefore, to keep in the middle of the *passage*, and you will be well sheltered from all winds.

Colon and Sesllanes. Three-quarters of a mile N. W. ($N. N. W. \frac{1}{4} W.$) from *Bufera* is the *Island Colon*, lying so close to the land, that boats only can pass between them with safety. At the south and eastern points of the *Island* are some *rocks* above water, and a *sunken rock* about a cable's length off it, with only 11 feet over it; the other part of the *Island* is clear of danger. On its western side is the *Roadstead of Sesllanes*, fit for moderate sized vessels: in running for it, take care to avoid the *Arenal del Moro*, a *rock* above water, which having left on your larboard side, you may anchor in 5 or 6 fathoms, with an anchor out to the N. W., and a cable made fast on the *Island* to the S. E. This place is incommoded only by the N. E. winds, which drive in a sea; but if your anchors and cables are good, there will be little danger. The same sort of vessels may also ride off the S. E. part of the *Island*, with a fast on the *Island*, and an anchor out to the S. E., in a similar depth of water, sandy ground; but E. N. E. to E. S. E. winds render these anchorages unsafe. From this *roadstead* small vessels may, if necessary, run into the little haven to the West, called *Grao*, which extends about half a league inward. But this *inlet* is shallow, and has *sunken rocks* at the two points of its entrance: those, however, who can enter, will find good shelter there from all winds; only in entering, you must keep midway between the points. In anchoring on the S. E. side of *Colon Island*, the *rock* called the *Judia* will be seen on the larboard side, and beyond this the *Point* called *Fray Bernat*, where the low shore begins, outside of which is the proper anchorage.

CAPE MUSENE VIVES. Nearly N. N. W. ($N. \frac{1}{4} W.$) from the *Isle of Colon*, distant $1\frac{1}{2}$ mile, is *Cape Musene Vives*, high and steep, but not much projecting: off the point a reef stretches out three-quarters of a mile, having $5\frac{1}{2}$ fathoms water at its extremity. From hence the coast runs inward, forming a large bay, whose northern point is *Cape Favaritch*; the land at the point is low, but rises up inland: in passing it, at about three leagues' distance, it has the appearance of three *Islands*. Nearly W. N. W. $\frac{1}{4}$ W. ($N. W. by W.$), distant 1 mile, at a place called *Porticul*, are some *sunken rocks*, which vessels in passing must carefully avoid.

PORTS DADAYA AND MOLI. Two miles and a quarter further are the *Islands and Havens Dadaya and Moli*: the larger, *Dadaya*, is elevated at its northern end;

the other islands are low. In running for the *Haven of Dadaya*, keep under the western shore, called *Noucous*; leave the islands to the larboard; and having passed the little island within the *haven*, you may anchor in $3\frac{1}{2}$ fathoms, abreast of *Cala Moli*; but further in it becomes shallow, and unfit for any but very small vessels. At the entrance to this *Haven* are $6\frac{1}{2}$ fathoms; off the shore of *Noucous*, about a boat's length, $2\frac{1}{2}$ fathoms; at the mouth of *Cali Moli*, $3\frac{1}{2}$ fathoms; but at the entrance to the interior *haven* only 11 feet; and further in it becomes still shallower; off the small *Island of Dadaya* a reef runs out to the N. W. (N. N. W. $\frac{1}{4}$ W.), which in fine weather is not dangerous, but with a swell of the sea, the water breaks all over it: there are 5 fathoms upon most parts of it.

From the N. Western point of the *Haven*, called *Den Falet*, the coast runs N. W. by W. (N. W. $\frac{1}{4}$ N.) to *Point Schodolada*, a full mile, there being some small coves between. Beyond this point is a deep Bay, called *Arenal del Castel*, little frequented. To the northward is *Cala Podent*, being the entrance to the *River Arenal de Colla*; and further on is a similar place, at the mouth of which is the small *Island of Forqueta*. Near this is *Cape Pentinat*, low, but stretching to seaward a good way: this *Cape* lies N. N. W. $\frac{1}{4}$ W. (N. $\frac{1}{4}$ W.) from *Point Den Falet*, distant $2\frac{1}{2}$ miles. The shore now becomes irregular and sinuous to *Cape Morteret*, or *Point Ponza*, which is high and steep, with a tower situated upon its summit, being the eastern point of the *Haven of Fornells*.

THE PORT OR HAVEN OF FORNELLS is fit for vessels of all sizes: its entrance is narrow, but the water deep; it is completely sheltered from every wind, and without any hidden danger until you are within it; but with N. E. or North winds, you must carry a press of sail, to have distance enough to run without tacking, on account of the diversity of winds you will meet with off *Cape Morteret*: when you are within the point, it will blow more steadily. The anchorage for large ships is abreast of the old *Castle* at the west part of the *haven*, where the town stands, in from 7 to 11 fathoms, mooring E. and W. Within the *haven* are numerous shoals, requiring a person well acquainted to keep clear of. About $2\frac{1}{2}$ miles from the bottom of the *haven* is the *Mount Toro* already noticed.

Half a mile W. by N. (W. N. W. $\frac{1}{4}$ N.) from the western point of *Fornells* is *Cape Anfos*, the beginning of a spacious bay, running as far as *Cape Levante*; within it are several coves or inlets. The land is lofty as far as the first of these coves, which is named *Anfos*; but beyond that it becomes low to the *Arenal of Tirant*. Here is a small river, and before it a rock above water. A mile further is the *Beach of Falet*. The land now begins to rise, and continues high to *Cape Levante*. From the *Mola of Fornells* to *Cape Levante* the distance is 2 miles, and the course N. W. by W. (N. W. $\frac{1}{4}$ N.), nearly.

N. W. (N. N. W. $\frac{1}{4}$ W.) from *Cape Levante*, a little way, is *Cape Caballeria*, high, steep, and stretching out a considerable way: inland the land is lower, so that this *Cape*, seen at a distance, appears like an island, and separated from the main. One mile N. W. (W. N. W. $\frac{1}{4}$ W.) is the *Island Porros*; between which and the *Cape* are several rocks, rendering the channel between them hazardous for any but boats. Westward of *Cape Levante* is *Port Sanitge*, where vessels may moor, head and stern, abreast of a precipice and cove, in $3\frac{1}{2}$ fathoms. To go in, you leave *Porros Island* to the larboard, and a great rock at the western point of the harbour to your starboard; and should you touch the ground, no injury will ensue, for the bottom is soft and muddy.

Nearly W. S. W. (W. $\frac{1}{4}$ S.) of *Porros Island*, $1\frac{1}{2}$ mile, is the *Isle of Bleda*, lying off the *Cape Salayro*. Between these islands is an opening containing the above Port; near which are the Cove of *Torta*, the Beaches of *Caballeria*, *Ferragut*, the Sands of *Beni Malla*, the *River Treboluzyer*, and *Cala Salayro*; at the entrance to the latter are several rocky islands. Between *Bleda Island* and *Cape Salayro* is a small passage, fit only for coasters: the *Cape* itself is isolated by the small river which runs from *Cala Salayro* to *Cala Calderi*, a narrow cove, or bay, to the southward of the *Cape*. W. by N. (W. N. W. $\frac{1}{4}$ N.) from the *Island Bleda* is the *Penal of Antichristo*, lofty, steep, and projecting; one mile and three-quarters from which is *Point Falconera del Farinet*, broad and rocky. Between are the Coves of *Bini Dausa*, *Tauber*, and *Codolada del Farinet*, and another small river: at the entrances to both *Tauber* and *Codolada del Farinet* lies a rock above water.

Three-quarters of a mile westward of *Falconera* are the *Fort* and *Cove of Tauler*; and further on *Cape Grosso*, bearing from *Falconera* W. N. W. $\frac{1}{4}$ W. (N. W. by W.),

distant $1\frac{1}{2}$ mile. Beyond *Cape Grosso* is *Cala Carbo*, and further on *Cape Roza*; a quarter of a mile W. S. W. (*W. $\frac{1}{2}$ S.*) from which is *Point Pontanellas*. To the southward is the low shore of *Algairens*; and between that and *Fray Bernardo* the *Codolada of Bini Atran*, having a rock above water near the shore.

Fray Bernardo lies W. $\frac{1}{2}$ N. (*W. N. W. $\frac{1}{2}$ N.*) from *Cape Grosso*, distant 2 miles; and the coast continues in nearly this direction to the *Points of Guardia* and *Secullas*, and further on, to the *Cove of Enderrossay*. To the westward, and near *Fray Bernardo*, is a rock above water, three-quarters of a mile from which is *Moralla Cove*, and a little beyond it the *Cove of Furidada*. Here the *Point of Secullas* runs out northward. One good mile further is *Enderrossay Cove*, and beyond it the two *Coves of Sella* and *Mons*. But all these *Coves* are unfit for shipping, and useful only to fishing craft: indeed, the whole of the northern coast of *Minorca* is improper for anchorage, both on account of the great depth of water along it, and the heavy sea which northerly winds drive upon it.

Cape Sella is the N. W. *Point of Minorca*, of considerable elevation, and steep-to, having a rocky island near it, with 16 fathoms water close to it. N. E. (*E. N. E. $\frac{1}{2}$ N.*) are two other rocks, near each other; and to the S. W. (*W. S. W. $\frac{1}{2}$ S.*) some sunken rocks, running out a cable's length from land, with 2 and 3 fathoms water over them. Nearly in this direction runs the land for one mile to *Point Espardina*, beyond which you will find *Cape Perpigna*: a little cove lies between this latter *Cape* and *Point Galera*, called *Alcazas*. To the westward of the *Point* is the *Cove of Falconera*. The inflexions of the land form also some other inlets, of no use to shipping.

Nearly S. W. (*W. S. W. $\frac{1}{2}$ S.*) from *Cape Sella*, distant 3 miles, is *Cape Minorca*, called also *Cape Bayoli*. This is the western point of the *Island*, and in latitude $40^{\circ} 2' 50''$ N., and longitude $3^{\circ} 50' 43''$ E.; on it is a tower, from which the land slopes down to the sea, forming two kinds of steps, steep-to, the depth of water round it being 18 fathoms, good holding ground. S. $\frac{1}{2}$ E. (*S. S. W. $\frac{1}{2}$ S.*), $1\frac{1}{2}$ mile from the *Cape*, is *Point den Banicus*: and about a similar distance E. by S. (*E. S. E. $\frac{1}{2}$ S.*) from that, is the entrance to *Ciudadella*, the small *Coves of Forcat*, *Beut*, and *Blana* lying between.

PORT CIUADELLA runs in N. E. (*E. N. E. $\frac{1}{2}$ N.*), and then turns more easterly: at the entrance is 6 fathoms, and half way up, 2 fathoms, all sand and gravel; but it is so narrow, that a brig can scarcely tack within it: and when the wind blows from the W. or S., a heavy sea drives in, producing a great press upon your anchors and cables; but with other winds, vessels may ride at its entrance in 18 fathoms, or less, safely, the ground holding very well. This *Haven* may readily be known by the *Chapel and Battery of St. Nicholas*, which stand on the south point, and by the *Town of Ciudadella*. Steer for the *Chapel*, and run close to it, leaving it on your right hand; the point is clear of dangers.

From hence the shore runs southerly, nearly 5 miles, to *Cape Dartuch*, having three *Coves* between. First *Degollador*, which is only fit for barks, and turns inward, close to the *Point* where *St. Nicholas's Chapel* and *Battery* are situated, and before which lies a rock; the land being low, and continuing so for full 2 miles. *San Andres Cove* is a mile further to the southward, and may be useful to coasters and small vessels. *Cala Blanca* is about three-quarters of a mile beyond that, and too narrow for any thing but small craft. Should any mariner resort to these *Coves*, he should either secure his vessel by good anchors and cables, or, like the barks, run aground on the beach; for on-shore winds generally drive into them a very heavy sea. From *Cala Blanca* the coast is steep, but not very elevated, to *Point Negra*, in a S. S. W. (*S. W. $\frac{1}{2}$ S.*) direction; and from *Point Negra* to *Cape Dartuch* nearly S. by W. (*S. S. W. $\frac{1}{2}$ W.*), having deep water all the way.

Rocks and Shoals reported to lie about the Environs of the Balearic Islands.

1. A shoal is said to lie in latitude $39^{\circ} 17' 30''$, about 18 leagues S. E. $\frac{1}{2}$ E. (*S. E. by S.*) from *Port Mahon*, with 16 fathoms upon it: when the sea runs high, the water over it appears to break and ripple. This, on examination, proves to be a *Bank* of about 2 miles in extent.

2. Another rock or shoal is asserted to lie in latitude $40^{\circ} 17'$, somewhere about 29 miles from *Cape Mola*, bearing nearly N. N. E. $\frac{1}{2}$ E. (*N. E. $\frac{1}{2}$ E.*). This danger is considered very doubtful, although two rocks are said to have been seen, appearing like the keels of ships, in or about this situation.

3. The *shoal* stated to lie nearly on the meridian of *Cape Minorca*, or *Bayoli*, in latitude $40^{\circ} 28'$, is known to exist; but its precise form, size, or position is not accurately ascertained.

4. Another *shoal*, marked very doubtful in the *Chart*, lying in $40^{\circ} 35'$, and distant about 33 miles W. by N. (*W. N. W. & N.*) from the former, is generally discredited.

5. There is also a *shoal* marked upon the *Chart*, as dangerous, having only 12 feet water over it, lying due West (*nearly W. N. W.*) from *Cape Formenton*, in *Majorca*, distant 21 miles; but the existence of such danger wants confirmation.

SECTION IV.

THE COAST OF FRANCE.

FROM CAPE DE CREUX TO THE RIVER VAR.

Variation, One Point and Three Quarters West.

Having described in the former Section that part of the Spanish Coast which lies to the northward of *Cape de Creux*, ending at *Cape Servera*, in latitude $42^{\circ} 27' 18''$ N., and longitude $3^{\circ} 9' 0''$ E., we here proceed from that point along the *Shores of France* to the *River Var*.

To the northward of *Cape Servera* is a *sunken rock*, which lies about 500 fathoms from the shore, and has only 5 feet water over it: you will avoid it by bringing *Fort St. Elme* over, and a little inside of, the point of *Port Vendre*, for that will carry you to the eastward of it; but it will be somewhat hazardous to go between it and the land, for there lies about mid-channel another *rock*. Three miles W. N. W. $\frac{1}{2}$ W. (*N. W. $\frac{1}{2}$ W.*) from *Cape Servera* is *Port Bandol*, fit only for small craft. About two miles further is the entrance to *Port Vendre*.

PORT VENDRE is in latitude $42^{\circ} 32' 5''$ N. and longitude $3^{\circ} 5' 57''$ E. It may be known by a great rock on the larboard side, and by a small square tower, serving for a lighthouse, on the starboard side; between these two is the entrance, or channel, with, about midway, 9 and 10 fathoms, and near the rock, as well as the lighthouse, are 5 and 6 fathoms. On a rising ground to your larboard is a stone redoubt; and further in, on another point, are two small houses, and a redoubt over them. At the bottom of the port is a kind of fortress, behind which is a garden, and a well of good water: this end of the port is shallow. The best place of anchoring is not so far in, but between the storehouses and the lighthouse, in $3\frac{1}{2}$, 4, or 5 fathoms, grass and mud: you are here exposed to winds from the N. E. and E.-N. E., which occasion a great swell. There is a passage between the great rock and some others lying off the larboard side of the port, with 3 and 4 fathoms; and small vessels may anchor in a creek within the rock, if necessary.

COLLIOURE. From *Port Vendre* to the north-westward, $2\frac{1}{2}$ miles, lies the Town of *Collioure*, situated on the sea-side, in a kind of port or bay, at the foot of a rising ground, upon which stands a fort called *Mirdor*. To the westward is a castle, standing on a rocky point. S. S. W. $\frac{1}{2}$ W. (*S. W.*), at the bottom of a sandy creek, are several small houses, and an old tower in ruins; not far from which is a monastery. You will also see inland the Tower of *St. Elne* on a mountain, which defends both the entrances to *Port Vendre* and *Collioure*. Off the starboard point of the latter is an island with a chapel upon it, and, between the island and the point, a passage for boats. The Port of *Collioure* is safest with westerly winds: if you ride in the middle of the port before the town, with an anchor down to the E. S. E., and moor ashore near the town, you will have 3, 4, and 5 fathoms water; but it is by no means a good place to anchor in, for with easterly winds there is a heavy sea: it is therefore only frequented by small craft. To the northward lies the Town of *Perpignan*, standing in a plain on the banks of the *River Tet*, having *Cunet Tower* near its entrance. Within this space are the Towns of *St. Elne* and *St. Nazaire*. N. $\frac{1}{2}$ W. (*N. by E. $\frac{1}{2}$ E.*) from the Tet is the

Gly River; beyond which is situated the *Castle of Salcis*. Between this castle and the sea is the *Great Lake of Leucate*, having several inlets formed by the islands within it; and on its northern banks the *Town of Leucate*. Here, upon a long point, stands a *watch-tower*, by which you will know *Cape Leucate*, in latitude $42^{\circ} 58' 30''$ N., and longitude $3^{\circ} 5' 10''$ E.

PORT AND CITY OF NARBONNE. About 2 leagues to the N. $\frac{1}{2}$ E. (*N. N. E.* $\frac{1}{2}$ E.), distant 2 leagues from *Cape Leucate*, is *Cape Romanion*, forming the south side of the entrance to the *Port of Narbonne*; and between them is the *Inlet Grau de la Franque*, off which small vessels may anchor in 5 or 6 fathoms, fine sandy ground, distant $1\frac{1}{2}$ mile from the land; but this, like the other parts of this coast, becomes dangerous with easterly winds; indeed, from *Cape de Creux* to *Narbonne* none of the roadsteads are good; for when East or S. E. winds blow, they cause such a sea, that none anchor there, except in cases of necessity.

The *City of Narbonne* is situated on a river of the same name, at the distance of 10 miles from the entrance of the *Port*; it is now a place of little commercial consequence, and has a population of about 12,000. It is in latitude $43^{\circ} 10' 50''$ N., and longitude $3^{\circ} 0' 55''$ E.

Cape St. Pierre may be considered the northern point of the *Bay of Narbonne*; it bears from *Cape Leucate* N. by E. $\frac{1}{2}$ E. (*N. E. by N.*), distant 14 or 15 miles, and forms a prominent headland, stretching out to the seaward. About 18 miles N. E. by E. (*E. N. E. $\frac{1}{2}$ E.*) from *Cape St. Pierre*, are the small *Island* and *Fort of Brescou*, which is about 3 miles east of the *River l'Ereux*, or *Agde*, from whence is cut the *Royal Canal*, joining the two seas, and running to *Toulouse*.

Fort Brescou stands upon a flat rock, surrounded by the sea, and is 5 or 6 cables' length from the shore. To the northward of the *Fort* is the *Mountain of Agde*, upon which are two small houses. At the foot of *Mount Agde* is a large long heap of stones, called the *Mole of Agde*, and close by some fishermen's houses: westward of the *Mole* was formerly the *Port of Agde*, now filled up with sand. The *Tower of Agde Cathedral* lies in latitude $43^{\circ} 18' 40''$ N., and longitude $3^{\circ} 28' 15''$ E. On the eastern side of the *Mole* vessels may anchor for a tide near the *Cape*, or *Conque Rocks*, in 3 and 4 fathoms, lying near the *Mole*; but they must not come too near *Cape Brescou*. Between the *Mole-head* and *Fort Brescou* is a nest of dangerous rocks, having only 4 feet over it, and 20 to 25 close to its sides. There are also several rocks to the westward of *Fort Brescou*, adjoining the flat rock upon which it stands. If you should be distressed on this coast, coming from the westward, and wish to anchor under the shelter of the *Fort*, even in a small vessel, and with a light draught of water, you should not approach too near it, but pass almost in the middle between the *Fort* and low land on the larboard side, where are 15 and 16 feet water; and when you have got within the *Fort*, it is deeper. In coming from the eastward, you must range along the *Mole-head*, to avoid the rocks above mentioned, and you will have from 17 to 20 feet water; when you are past the *Mole-head*, tack, and anchor towards the *Fort*, taking care not to near it too much.

CETTA, or CETTE. This is now a small trading town, situated at the entrance of the *Canal of Languedoc*, and is the *Port Town of Montpellier*. It lies about 11 miles N. E. $\frac{1}{2}$ E. (*E. N. E. $\frac{1}{2}$ E.*) from *Fort Brescou*, and may be known by a mountain somewhat like *Mount Agde*; but when you come from the eastward, it seems to be an island: between *Agde* and *Cette* the shore is low and sandy. *Port Cetta* is to the eastward of the mountain, and has a long *Mole* running out on the larboard side, on the head of which is a battery, and not far off that a lighthouse, which is lighted every night, and sufficiently distinguishes this place: this lighthouse is in $43^{\circ} 23' 37''$ N. and longitude $3^{\circ} 41' 11''$ E. There is also a heap of stones laid to the N. E. easterly (*E. N. E.*) to stop the rolling of the sand, and another midway of the entrance. The *Mole* runs as far as the entrance to the *Royal Canal*, which is at the bottom of the *Port*, and runs by the side of the *Town*: this canal has a drawbridge over it, and runs into some lakes, on the banks of which are the *Baths of Balure*, and the famous mineral waters of *Frontignan* and *Montpelier*.

To sail into *Cette*, you must steer on until you are abreast of its entrance, and range within half a galley's length of the *Mole Head*; you may then run in, and anchor alongside the *Mole*, having one anchor to the N. E. with a fast upon the *Mole*, and your head to the sea: you may go, with either ships or galleys, to the farther end of the *Mole*, and have from 12 to 16 feet, ooze and sand; the starboard side of the *Port* is shoal. At the entrance, and near the lantern, are three and four fathoms; but a little way out is a shelf of sand, with only three fathoms upon it; and there frequently runs

a heavy sea, with the wind from E. S. E. to S. W., which so obscures the coast, that you cannot see the land until you are very near it. There is a good spring of water at the bottom of the *Harbour*.

The *Town of Cette* stands on a long and narrow peninsula, which extends S. Westward to within a league of *Agde*, having a great lagoon between it and the main land; and the coast to the north-eastward is formed in a similar manner, being broken into narrow islands, and level with the edge of the sea.

MONTPELIER is a large and ancient town, the capital of the Department of the *Herault*, and situated between the *Rivers Masson* and *Lez*. It stands about 2 leagues from the sea, and communicates with the *Harbour of Cette* by the *Canal de Grave*, through which a considerable trade is carried on in wine, perfumery, verdigris, liqueurs, &c., and is much celebrated for its healthy and beautiful situation, and the salubrity of its climate. Its observatory is in latitude $43^{\circ} 36' 16''$ N., and longitude $3^{\circ} 52' 46''$ E.

AIGUES MORTES. About 25 miles from *Cette* is the *Town of Aigues Mortes*, situated amid low and marshy land, and on the banks of a salt-pond, which communicates with the sea; but ships seldom anchor before it, because of the shoals off-shore, which must be avoided as much as possible, or the tide will set you right on them. On crossing the *Gulf of Lyons* from West to East, or towards *Marseilles*, if the wind should be South, or S. S. E., you should take care to avoid the *Bight of Aigues Mortes*; for the currents setting N. and N. W., occasion frequent wrecks: if, therefore, in foggy weather, or in the night-time, have recourse to your lead frequently; and if, two or three leagues off-land, you should find ground at 30 or 40 fathoms, tack immediately towards *Catalonia*; for along that coast, as well as the coast of *Roussillon*, the tides about the land run southward.

Le Petit Neptune has the following note. "It is remarkable that the tides should make the tour of the *Gulf of Lyons*, running north along the coast of *Provence* (Department of the *Rhone*); west along the coast of *Languedoc* (*Herault*); and south along *Catalonia*: and when the wind is N. W., the tides are the reverse; for along the coast of *Catalonia* they run to the north, along the coast of *Languedoc* south, and along the coast of *Provence* to the East and S. S. E." What renders this part the more dangerous is the lowness of the land, which cannot be seen more than 3 or 4 leagues off, although in clear weather, the steeples and towers of the towns and villages further inland may be seen at a greater distance; but with the winds off-shore you may sail along without any inconvenience or danger.

RIVER RHONE. Proceeding to the eastward, the *River Rhone* enters the sea in two channels, divided by the small *Island of Bauduyff*. The S. W. entrance will only admit small vessels, and may be known by some huts standing on the western side. There are several shoals off the entrance, which shift their situation frequently: a beacon will be observed on the larboard side, like the mast of a ship; and a buoy is commonly laid down, to distinguish the passage. The chief entrance is $2\frac{1}{2}$ leagues more to the eastward, and may be distinguished by the *Tower of St. Louis*, in latitude $43^{\circ} 20' 10''$ N., and longitude $4^{\circ} 47' 50''$ E., which stands on the northern bank of the *River*, and will be discerned much sooner than the land about it. On the eastern side are some fishermen's huts, which also serve as marks: it is by this channel tartans and small craft proceed towards *Arles*; but as the sandbanks are continually shifting their positions, no person should enter without a pilot. It must also be observed that the currents must be particularly attended to throughout the *Gulf of Lyons*, these parts of the coast being extremely dangerous: after heavy rains, the waters pouring from the different lakes and rivers hereabout into the sea, occasion the currents to set out with more velocity into the offing, and the contrary in times of great drought; the waters from the sea rushing towards the lakes and river, occasion the currents to set strongly in-shore.

HAVEN OF MARTIGUES. About 2 leagues to the eastward of the great mouth of the *Rhone* lies the entrance to the *Haven of Martigues*, and between is the *Bay of Fox*, having a low sandy shore, with two windmills on two little hillocks almost at the bottom of the *Bay*, and the *Town of Fox* on an eminence; not far from which are some ancient aqueducts. Opposite to *Fox* is a long low point, between which and the *Point of Bouc* galleys coming from the westward may anchor, if they should fail to reach the *Harbour of Bouc*. When coming from sea, or the south-eastward, for *Martigues*, it will be found advisable to steer along the main land until you are within the *Haven*, on account of some sands which stretch off the *Piquet's Islands* a full

league into the sea. The islands are low, but on one of them a *white Tower* is built, which has the appearance of a ship under sail.

THE PORT OF BOUC is at its entrance narrow, and has on its starboard bank a *fortress*, with a *square tower of white stone* in its middle, which may be seen a considerable distance; it stands on the *point* of an island, which is separated from the main land by a small rivulet: the larboard point, or *Point Lecco*, is low, and has some rocks round it, which you must avoid; within this *Point* is a *rocky shoal* called *Foucard*, with only 5 or 6 feet water upon it, the sea breaking over it: by bringing the two *sentry boxes* of the *fortress* in one, and following that direction until the extremity of *Point Lecco* bears W. S. W. $\frac{1}{4}$ W. (*West*), you will be upon it. In entering *Bouc*, you should range nearer the starboard side; steer N. E. $\frac{1}{4}$ E. (*E. N. E.*) until you see the *drawbridge* of the *Castle* to the eastward; then stand no further that way, for fear of touching on a *low point* under water; but when you perceive the bridge, stand with your head to the village of *Bouc*, leaving it a little to the larboard, by which you will avoid the ledge of rocks called the *Foucard*. Observe, in anchoring, not to come too near the village, as the water shallows: the best anchorage is to the N. E. (*E. N. E.* $\frac{1}{4}$ N.) of the lower point on the left, where you may carry a mooring to some rocks, which are above water on the same side; you will have 14, 15, and 16 feet water, mud and weeds: you may also pass the *Foucard*, on the opposite side, in 14 and 15 fathoms; but it is not recommended, unless you are fully assured of the situation of the *Foucard*. S. W. winds cause a high sea. Water may be had at *Martigues*. At the further end of the *Port* are several low islands and sands, through which the water runs to *Martigues*: the chief channel, which is navigable, is to the southward, and may be known by a *house* standing at its end. In these channels are several weirs, called *Bordigues*, for catching fish. The *Town of Martigues* is about one league from *Bouc Tower*.

CAPE COURONNE. About $4\frac{1}{2}$ miles S. S. E. $\frac{1}{4}$ E. (*S. by E.*) from *Bouc* is *Cape Couronne*, in latitude $43^{\circ} 18' 50''$ N. and longitude $5^{\circ} 1' 55''$ E., which is the western extremity of the great *Bay of Marseilles*, *Cape Croisette* being the easternmost point. Between *Bouc* and *Cape Couronne* the land is low, and without any anchorage. *Cape Couronne* is a smooth point of land, from whence almost all the free-stone for the buildings at *Marseilles* is obtained. The *Cape* is low, but the land rises with a gentle ascent towards *Marseilles*, near which are several mountains. Off *Cape Couronne* are some *sunken rocks*, called *Les Regats*, and *Lès Muets*, over which the sea oftentimes breaks; and between the outermost of these and the *Cape* is a passage with 3, 4, and 5 fathoms water; but it is not advisable to venture it without a thorough knowledge of the situation of the rocks.

MARSEILLES. From *Cape Couronne* to *Cape Croisette* the course is S. E. by E. $\frac{1}{4}$ E. (*S. E.* $\frac{1}{4}$ S.) almost 15 miles. Your approach may be known by the appearance of these points, *Cape Couronne* being low land, and *Cape Croisette* very high: from the westward several high mountains will be distinguished, more particularly a round mountain, called the *Mountain of Aix*, and the *Mountains of St. Baume*; while to the eastward of these you will discover the *Mountain of Sery*, appearing like two sugar-loaves. Beside these, you will soon get sight of the *Island of Riou*, which is moderately high, and situated almost 2 miles from *Point Croisette*.

Outside of the line of direction of these *Capes* is the *Island of Planier*, which is small and flat, having a *white tower* and *lighthouse* upon it, called the *Tower of Planier*, seen afar off; a number of rocks under water surround it. E. S. E. $\frac{1}{4}$ E. (*S. E.* $\frac{1}{4}$ E.), distant 1 mile, is a bank called the *Veyreun*, with only 14 feet at low water: the marks for it are the *Moulon de Ble* and *Notre Dame de la Garde* in one, and the N. W. *Point of Calasaraigne* in one with *Cape L'Aigle*. N. E. by N. (*N. E.* $\frac{1}{4}$ E.) from *Planier*, about $1\frac{1}{2}$ league, is the *Island of Pomegue*, or *St. John*; further north is the *Island of Ratoneau*, about the size of the former; to the west of which is the small *Island of Tiboulen*; and to the eastward the larger one of *Chateau d'If*. Between *St. John* and *Ratoneau* is a channel, called *Friou*. Upon the N. E. *Point of St. John's Island* are some fortifications adjoining to a round tower; and upon the highest part of the *Island* stands the *Tower of St. John*. At *Point Pomegue*, which is to the southward, and almost midway of the island, is a creek, formed by a small island near *St. John*, where vessels coming from the *Levant* sometimes perform quarantine: here you have from 3 to 6 fathoms water, muddy ground; but the usual place of anchorage is between *St. John* and *Ratoneau*, near the point of the former, where the tower stands, and near also to a rock above water, which faces a sandy beach in the *Isle of Ratoneau*, where you will find 3, 4, and 5 fathoms,

muddy bottom. Have an anchor down to the south-east, and a good mooring to the *Island of Ratoneau*, because the squalls from the N. W. sometimes come over the island with considerable violence. On *Ratoneau* is a *battery*; and between the eastern point and *Chateau d'If* there is anchorage with 3 and 4 fathoms, muddy ground, but exposed to S. E. winds. *Chateau d'If* is a great rock, fortified on all sides, and having three towers in the middle: there is a good passage between these islands, with plenty of water; and also between *Tiboulon*, which is to the west of *Ratoneau*, and the latter, where there are 18 and 20 fathoms.

When you cannot reach *Marseilles*, you may anchor in *Port Carre*, which is within *Cape Couronne*, in from 3 to 6 fathoms, or at the entrance to it in 7 or 8 fathoms; but beware of the *Regat* and *Muet Rocks*, as also of a rock under water off *Point Riche*. This *Point* is of moderate height, and has to the westward a small sandy Bay, called *Port Verdon*, where, with off-shore winds, a vessel may anchor. Two-thirds of a mile to the northward of this *Point* is the *Village of Couronne*. The S. E. and South winds cause a great sea. Eastward of *Point Riche* is a rock above water, called *L'Aragnon*; and near it are some enclosures, or *Madragues*, for catching the tunny-fish, opposite the *Village of Sausset*. One mile and three-quarters further along-shore is the *Village of Carre*, and 3 miles beyond that, the *Village* and *Cape of Mejan*, which is high. Between *Carre* and *Mejan* is another tunny-fish *Madrague*, called the *Madrague of Ginast*. To the westward of the *Cape* is *Port Mejan*, a creek, with anchorage for two or three galleys, having some rocks on the larboard entrance, which partly afford shelter: on entering, keep towards the starboard point; in the middle of the passage are 7 and 8 fathoms water, and in the Bay 3 and 4 fathoms, the ground mud and grass. There is a small rock above water off the *Cape of Mejan*; and further eastward is an island, called *La Revigne*, or *Revine*, between which and the land is a passage for boats: hard-by is *Point Miolon*, and further east, you pass *Point Panay*, near which is the *Village of Niolon*. From hence you will perceive the large whitish *Point of Corbierre*, near which is the anchoring of *Lestac*, called also the *Flemish Road*: place yourself within the *Point* not more than three cables' length from the coast, and you will avoid some stones, which otherwise may injure your cables. To be in a good berth, bring the end of *Cape Mejan* to bear on with the parting of the whitish rock before mentioned, and called *Miolon*, and you will have 12, 15, and 20 fathoms, with a bottom of mud and weeds. Upon *Corbierre Point* a *battery* is erected. From *Corbierre Point* you should not approach too near the coast, nor within the dotted line, as shewn in the engraved harbour, until you reach the *Lighthouse of Marseilles*, for towards the shore the ground is bad and rocky; but in a direct line from *Corbierre Point* to the *Lighthouse of Marseilles*, there are from 20 to 35 fathoms water, generally oozy bottom, with grass; about midway between *Corbierre Battery* and *Ratoneau* there is a patch of foul ground, with not less than 30 fathoms over it: and a similar one will be found opposite to *Carre*, between 2 and 3 miles from the land, over which are 40, 41, and 42 fathoms, rocky bottom, but no danger whatsoever.

THE CITY OF MARSEILLES is a large commercial City, and generally reckoned to rank the second in France: it is situated within an enclosure of lofty hills, which form a semicircle round it, each end sloping down to the sea. The City is of a square form, and has its port in the centre, entering from the sea by a narrow passage: this *Port* or *Harbour* runs in nearly east, and constitutes a basin 525 fathoms long, and 150 fathoms broad, having on its southern side docks for galleys, &c., so that it is completely sheltered from all winds, and remains perfectly tranquil in the most violent storms. This security is principally occasioned by the narrowness of its entrance, which does not exceed 100 yards, being confined by two projecting rocks, one on each side. On these are situated two *fortresses*, intended for the defence of the harbour. The one on the north side is called *St. John's Fort*, where the *lighthouse* is erected; the other on the south side is the *Citadel*, or *Fort St. Nicholas*. There is also a *Fort* called *Notre Dame de la Garde*, standing back upon a high mountain, and commanding both town and harbour.

The harbour or port is esteemed one of the best and safest in the Mediterranean. It is defended by a large point from the sea, and its entrance is between these two *fortresses*, where stand three *Pillars*, to which chains are fastened. Near the *lighthouse* are some rocks. In entering you should pass mid-channel, or, keeping a little to the starboard, bring the *sentry-box* in a line with the *windmill* beyond; follow this course until you enter the harbour's mouth; then as you turn round the *lighthouse*, range

nearer to *St. John's Tower* than you do to the *Pillars*, on account of some stones which have fallen: there are 15 and 16 feet at the entrance, 20 feet within the harbour, and on the outside of the harbour, 4 and 5 fathoms, where, when easterly winds prevent your going in, you may anchor, or over against the town, in 12 and 15 fathoms; but it is not advisable to continue there all night, as N. W. winds, blowing directly into the harbour, are sometimes violent. This harbour is said to be capable of containing nearly 1000 sail of merchant ships; but it has not sufficient water for men-of-war, which anchor outside. The quays by which it is surrounded, are of hewn stone, and provided with moles, piers, and other conveniences for loading and unloading vessels: and from its advantageous position, and the excellence and security of its harbour, it is well calculated for carrying on an extensive commerce. Its principal exports are woollens, silks, linens, liqueurs, oil, salt, hardware, lead, olive oil, preserved fruits, soap, gloves, and shawls; in short, Marseilles is the great outlet for all the natural and artificial productions of the South of France. Much corn is imported. Refreshments of all kinds are to be obtained at a cheap rate; and good water and wood are in great plenty. The *Observatory* is in latitude $43^{\circ} 17' 50''$ N., and longitude $5^{\circ} 22' 15''$ E.

Nearly S. S. W. $\frac{1}{4}$ W. (*S. W.*) of Marseilles is a low point, called *Cape Daume*, at the end of which are two small islands, with a fort upon the outermost: E. $\frac{1}{4}$ S. (*E. S. E.*) of these islands is anchorage with 6, 7, and 8 fathoms, mud and weeds; further out your anchors will be apt to drive. Between *Daume Point* and *Chateau d'If* are some rocks under water, about midway, called the *Canouvier* and *Sourdara*; upon the former are not above 2 feet, and on the latter about 3 feet: when you are directly upon the former, you will see the *Tower on St. John's Island* between two *Towers of Chateau d'If*; and when you are over against it, you will see the great *Cape of the Point of Montredon* in one with the middle of the passage between the *Point of Daume* and the first island. *Sourdara* is to the S. S. W. $\frac{1}{4}$ W. (*S. W.*), about a cable's length from *Canouvier*, and the sea always breaks over both: you may pass between these rocks and *Chateau d'If* without danger, having 10, 12, and 15 fathoms water, keeping nearer to the island; you may also pass between *Cape Daume* and them, which is the common passage, and range along the coast at pleasure.

To the southward of *Cape Daume* is *Veauue Road and River*; and further on the sandy shore of *Montredon*. In cases of necessity, you may anchor between *Cape Daume* and *Cape Croisette*; but you will have no shelter from the sea. There is a steep island off *Cape Croisette*, called *Tiboulén*, and near it is another, named *Maire Island*; you may go between them, keeping nearer to *Tiboulén*, because of a rock under water, which lies nigh *Maire Island*; but you cannot pass between *Cape Croisette* and *Maire Island*, because of several rocks thereabout. W. $\frac{1}{4}$ S. (*W. by N.*), distant 44 miles from *Cape Croisette*, lies the small *Island of Planier*, having a white tower upon it, which has been converted into a lighthouse: near this island are the rocks of *Veyreun*, over which are 15 feet water: and N. E. by E. (*E. N. E. $\frac{1}{4}$ E.*) from *Planier*, is another shoal, called the *Souquet*, which requires a berth in passing.

E. S. E. $\frac{1}{4}$ S. (*S. E. $\frac{1}{4}$ S.*), distant one mile from *Maire Island*, are the *Jaire Islands*, two in number, of moderate height, and within a cannon-shot of the shore, between which and *Jaire* are 12 fathoms, and between *Jaire* and *Maire Island* from 9 to 16 fathoms. Vessels coming from places where the plague rages, generally perform quarantine here, and unload their goods. Nearly one mile S. E. $\frac{1}{4}$ S. (*S. S. E.*) from *Jaire Island* is the *Isle of Riou*, which, in fact, is a large rock, having a watch-tower in ruins upon it; it is uninhabited and steep-to. Between *Jaire* and *Riou* is a small flat island, called *Caleseraigne*, having a shoal to the southward; and between that and *Riou* is a narrow channel with 8 and 10 fathoms water; but there are the *Conglous rocky Islets* between. To the southward of *Riou* are two rocks, called the *Emperors*: these rocks and islands are all steep-to.

About 12 miles E. S. E. $\frac{1}{4}$ E. (*S. E. by E.*) from *Cape Croisette* is *Cape L'Aigle*, high land continuing all the way.

PORMIOU, or PORT MIOU. Between the above Capes are the *Ports of Pormiou* and *Cassis*; the entrance to the former is narrow, and somewhat difficult to find out: there is, nevertheless, good anchorage and deep water within it, well sheltered from all sorts of weather. On entering, keep over to the larboard coast, in order to avoid being driven by the currents on the southern point. This port may be known by a white chapel at the starboard point of entrance.

CASSIS is in latitude $43^{\circ} 12' 20''$ N. and longitude $5^{\circ} 33' 0''$ E. The *Port of Cassis* is fit for small vessels, and has a castle above it; its entrance is narrow. On the star-

board side is a *Mole*, off the *West Point* of which lies the *Canoniere*, a rock above water. At the entrance are 4 fathoms, gradually shallowing as you advance toward the *Town*. Here are some other creeks, where galleys may anchor for a stretch, with the wind at N. W. Off *Cape L'Aigle* lies a dangerous rock, under water, called *Cassidaigne*; it is 4 miles S. $\frac{1}{2}$ E. (S. by W. $\frac{1}{4}$ W.) from *Cassis*, and $2\frac{1}{2}$ miles W. S. W. $\frac{1}{4}$ W. (West) from *Cape L'Aigle*. From this reef the eastern end of the *Island of Riou* bears W. N. W. $\frac{1}{4}$ W. (N. W. by W.), distant 6 $\frac{1}{2}$ miles.

LA CIOTAT lies to the northward of *Cape L'Aigle*, about three-quarters of a mile. The town is situated at the bottom of the port. Between the *Cape* and the entrance of *Ciotat* is *Ile Verte*, or *Green Island*. Between *L'Aigle* and *Ile Verte* is a bank, called the *Gunner*, with only 4 feet upon it; further in, and near *Verte*, are two others, the first about 100 toises from the *Gunner*, with 10 feet water upon it; the second further off, with 14 feet. On the larboard side of the *Port of Ciotat* are two moles, the outermost of which is the largest; and on the starboard side is a small fort, off which are some rocks under water. Gallies generally anchor between the two moles in 10, 12, and 15 feet water; the shoalest water is nearest the town, and that side is most open to the sea. In sailing in, either between the moles, or into the harbour, keep nearest the head of the mole, where you will see a crucifix. Good water may be obtained from a fountain to the westward. The E. S. E. winds blow in here; but when within the mole, there is nothing to fear, the *Island Verte* sheltering you from the sea. Vessels of larger draught of water may anchor to the south of the mole in 6, 7, 8, or 9 fathoms, but they should not remain there at night: you may also anchor near the coast, over against a point that has two windmills upon it, in 6, 7, and 8 fathoms, sandy ground.

BANDOL. About 6 miles E. S. E. $\frac{1}{4}$ E. (S. E. $\frac{1}{4}$ E.) from *Verte Island* is the *Castle of Bandol*, standing upon a moderate height; opposite to which is the small island *Rousse*, and near, to the eastward, a rock, *la Gritte*, under water, with a passage between, 6 and 7 fathoms deep. When you would anchor at *Bandol*, leave the rock on the left hand, and keep this course until you are over against a large house, standing on the sea-side near the *Castle*, and you will have 5, 6, and 7 fathoms, mud and grass. Between the *Island* and *Castle* boats only can pass; nor must you come too near the starboard point, or *Point de la Cryd*, on account of some rocks which stretch off it.

BRUSC. A little to the southward of *Bandol* is *Brusc Road*, which is nearly two miles across, and as deep as it is broad. On the southern side is the *Island of Embiez*, upon which is a small tower, with houses beneath. At the western end of *Embiez* are several rocks, both above and under water, called the *Raveaux*, the outermost of which are very dangerous, and if the sea is any way disturbed, it passes over them; on which account, when you wish to anchor in the *Road of Brusc*, you must give them a good berth. To the northward of *Raveaux* great rock also are breakers. The best anchoring place for gallies is to the northward of *Embiez Tower*; come not too near, but anchor within 2 cables' length of the shore; or if you chuse, carry the end of your cable on shore; you will have 6 and 7 fathoms, muddy ground, the anchors holding so well, you will be obliged to weigh them sometimes: moor with two hawsers N. N. E. and S. S. W. with the winds blowing into the harbour. In the bottom of this *Road*, and to the northward, is the small *Bay of Senary*, or *St. Nazaire*; the *Road* is good, but not much frequented. There is a small mole, between which and the western point is anchorage, with a cable fastened on the shore, in all weathers, observing that the cable and anchor are E. S. E. and W. N. W. You will see on each side of this *Bay* a small watch-tower, and at the bottom, the *Village*, where, if occasion requires, you may obtain water.

CAPE SICIE. From *Embiez*, to the south-eastward, is the high and steep *Cape of Sicie*, having the *Chapel of Notre Dame* upon it. This *Chapel* is in latitude $43^{\circ} 3' 6''$ N., and longitude $5^{\circ} 50' 15''$ E. There are two rocks, called the *Brothers*, near the eastern point of the *Cape*, having a passage between them and the *Cape*, with 10 fathoms water; but you should go in the middle of it, there being a rock under water close to the *Cape*, and another eastward of the *Brothers*, at about a cable and a half's distance.

ST. ELMES ROAD. From *Cape Sicie* to *Cape Cepet* the course is nearly E. N. E. $\frac{1}{4}$ E. (East), about 4 miles, all low land; nearly midway is *St. Elmes Road*, before a low sandy shore, where vessels may anchor in cases of necessity. Many have mistaken this place for *Toulon*; because as you pass, you see that *City*, and ships at anchor in the *Road*: it, however, lies near a league to the westward of *Cape Cepet*.

TOULON. *Cape Cepet* is the southern entrance to the *Bay of Toulon*; it is high

land, and upon the heights signals are made, to denote what vessels come in sight. Off the southernmost point of the *Cape* the sea breaks over a *rock* called *le Rascau*, about a cable's length from land; round the *Cape* are some *batteries*, and a little within the *Bay* a *Madrague* for catching fish. On the western side of the *Great Road*, between two large *points*, is *St. George's Cove*; on the eastern point of which stands *St. Mandry's Hospital*, and on the opposite side is a *battery*: further in is a large *sandy cove*, called the *Gulf La Veche*, with from 8 to 4 fathoms anchorage. Here is the *Lazaretto*, where ships perform quarantine: and N. $\frac{1}{2}$ E. (*N. N. E. $\frac{1}{4}$ E.*) from the *Lazaretto*, distant three-quarters of a mile, is *Fort Balaguier*. One-third of a mile from *Balaguier Fort* is a *square tower*, called *Eguillette*; the land between these two *forts* is low, and forms a kind of *sandy cove*, low and shallow; but you may anchor between them in 4, 5, 6, and 7 fathoms. To the eastward, and on the starboard side of these *forts*, at the extremity of a great *point*, is *La Grosse Tour*, at the point of which a small *bank* stretches into the sea; and to the northward, in rounding this point, is a *rock* under water, called *Le Tasse*, with about 2 or 3 feet upon it: there are also two other small *shoals*, one bearing nearly S. S. W. (*S. W. $\frac{1}{4}$ S.*), distant 400 fathoms, with 5 fathoms water over it; the other, W. N. W. $\frac{1}{4}$ W. (*N. W. by W.*) from the above *tower*, with $3\frac{1}{2}$ fathoms upon it.

To the northward is a large *Bay*, and at the distance of about $1\frac{1}{2}$ mile from *La Grosse Tour* is the *City of Toulon*, lying in latitude $43^{\circ} 7' 10''$ N., and longitude $5^{\circ} 55' 40''$ E., famous for the goodness of its harbour, basins, and fortifications. This has long been one of the chief stations of the French Navy: it has, properly speaking, two ports, the old and the new, or the military and the commercial port. The old or commercial port is a kind of basin, not large, but commodious, and surrounded by a handsome quay. The new or military port is one of the finest in Europe, and capable of containing 200 sail of the line. The arsenal, situated along the side of the new port, is a spacious edifice, stored with every requisite for shipping: here are docks for building vessels, storehouses with timber, canvas, cordage, anchors, &c., and a dry dock for repairs. There are also a foundry for cannon, and rope-house, built of free-stone, containing three arched walks, by which three sets of rope-makers can be employed at the same time. Towards the N. W. side of the new port or basin is the Ordnance Wharf, and in front of the old port is a *battery* of 24 guns. Nearly $2\frac{1}{2}$ miles W. by S. (*W. $\frac{1}{4}$ N.*) from this *battery* is the *Village of Seine*, off which you may anchor with small vessels, it being the western termination of what is properly called the *Little Road*. To the eastward of *La Grosse Tour* are the *Fort of Saint Louis*, *La Malgue*, *Vignette*, and *Le Brun*, the latter standing upon a *point* of that name, situated $2\frac{1}{4}$ miles E. $\frac{1}{4}$ S. (*E. S. E. $\frac{1}{4}$ S.*) from *La Grosse Tour*: these are all calculated to defend the *Great or Outer Road*.

To sail into *Toulon*, you should give the south part of *Cape Cepet* a good berth; and after having passed *Dupin's Battery*, steer up the *Great or Outer Road*, standing from side to side, as occasion may require, for there is nothing to bring a ship up. To sail into the *Inner or Little Road*, steer directly on for *Eguillette Fort*, until you get the *Two Brothers* (near *Cape Sicie*) on with, or a little open to the eastward of, the *Tower of Balaguier*; you will thus avoid the *Tasse Rock*: then sail on for the centre of the *City*, and anchor in a depth of from 8 to 5 fathoms, soft muddy ground.

There is good anchorage all over the *Outer Road* in from 6 to 15 fathoms: moor with an open hawse to the eastward. The ground is mud and clay, holding well. N. W. winds are the most prevalent, and blow strongest; but there can never be much sea with the wind in that quarter.

Toulon is not a place of any great commerce. Beef and wines are reasonable, and wood and water readily obtained.

POINT ST. MARGARET is at the distance of about one mile from *Cape Brun*, and about three miles from *Cape Cepet*; it has some *batteries* upon its point, which is high and steep; upon its summit stands a *Church*, with some *houses*: from hence, $1\frac{1}{4}$ mile, is *Cape Garonne*, lying S. E. by E. $\frac{1}{2}$ E. (*S. E. $\frac{1}{4}$ S.*) from *Cape Brun*. To the eastward of *Cape Garonne* is the *Mountain* and *Cape Querquairaine*, and to the eastward of that, a creek called *Bonnegrace*. Off the N. W. point of this creek are some *rocks* above water. To the southward are the *Roads of Manare* and *Engien*, from which may be seen the ships riding in the *Bay of Hyeres*. Southward is *Cape Escampearion*, a large steep point, being the extremity of the *Peninsula of Giens or Engien*. Upon this *Cape* is a house, having the appearance of a *Castle*, called *Giens*: $1\frac{1}{2}$ mile off the *Cape* are *rocks*, the *Fournigues of Escampearion*, both above and under water; of

which latter you must be careful, especially as there generally is a great swell of the sea here.

THE BAY or ROAD OF HYERES. The *Road of Hyeres* is formed by the land of *Cape Esterel*, and the *Cape of Benat*, which bear from each other E. N. E. and W. S. W. (E. $\frac{1}{2}$ N. and W. $\frac{1}{2}$ S.), distant 9 miles. To the southward and south-eastward of the *Road* are several large islands, called the *Islands of Hyeres*: they are divided from each other by channels of deep water, all of which are passages leading into the *Road*.

The *Town of Hyeres* stands at the distance of 2 miles from the north-western shores of the *Bay*: it is built on the side of a hill, and surrounded by a beautiful plain, enriched with gardens, containing the finest fruits, such as oranges, citrons, and pomegranates, which flourish in the open air. The houses are mostly white, and have a good appearance, but the streets are mean and dirty; and the exhalations which arise from the neighbouring salt-lake render it far from a healthy situation. The *Town* formerly stood on the edge of the water; but the sea having receded from it, has now left it full 2 miles inland.

THE ISLANDS OF HYERES are six in number, besides several lesser islets. The principal ones are named the *Great* and *Little Ribaud*, which lie off the *Peninsula of Giens*, and are connected with it by a sandy and rocky reef. The *Porquerolles*, an island about 4 miles long and 1 mile broad, lying above a mile distant from the *Great Ribaud*, and having a channel between them, with from 8 to 22 fathoms water, being named the *Little Passage* into *Hyeres Road*. The *Baguieu Island*, which is narrow, about one mile long, and distant $4\frac{1}{2}$ miles from the eastern shores of *Porquerolles*: between these is the *Great Passage*, with from 18 to 30 fathoms, and still deeper water as you approach towards *Baguieu*. *Portcross*, which lies very near *Baguieu*, having a narrow channel between them, with from 6 to 15 fathoms in it, and being called the *Little Passage of Baguieu*. *Levant*, or *Titan Island*, which is the easternmost island, is about half a mile to the eastward of *Portcross*, and has a channel with from 9 to 20 fathoms water: this island is of a serpentine form, being 4 miles in length, and generally narrow; it is 5 miles distant from *Cape Benat*, and still more from *Cape Negrete* and the land adjacent, having very deep water between. This is called the *Levant Passage*.

To sail into the *Road or Bay of Hyeres* there are three clear and safe channels. The *Little Passage*, which is between *Ribaud Island* and *Cape Esterel* on the north, and *Porquerolles* on the south, having from 7 or 8 to 22 and 24 fathoms within it. In sailing through this channel with a leading wind, give the S. W. *Point of Porquerolles* a good berth, to avoid those rocks which lie off it; steer through as near midway as possible; but with a beating wind you may stand pretty close on either side, except about the before-mentioned point. The other channels, called the *Great Channel*, and that between the islands and the main, called the *East*, or *Levant Passage*, are clear, and without any danger.

Between the *Little Ribaud* and the main there is no passage, and the land has several salt-pits; but between *Little* and *Great Ribaud* is a channel for barks and small craft. Vessels sailing from *Cape Cepet* for the *Little Passage*, should steer about E. S. E. $\frac{1}{2}$ S. (S. E. $\frac{1}{2}$ S.) for 10 miles, when the channel will be open. There is a *Castle* standing about the middle of *Porquerolles Island*, before which you may anchor in 6, 8, or 10 fathoms; or proceed to the northward, and anchor before the *Town of Hyeres*. The anchorage is good in most part of the *Bay*, and numbers of vessels may ride there secure, and out of gun-shot; but the best place is towards the northern part of the *Road*, in from 12 to 10 fathoms water, on a bottom of soft mud, the salt-houses bearing N. N. W. $\frac{1}{2}$ N. (*North*), and *Fort Breganson* from E. N. E. $\frac{1}{2}$ E. to E. $\frac{1}{2}$ S. (E. to E. S. E.). But with easterly and E. S. E. easterly winds, you will experience a very heavy swell of the sea. Water may be obtained at the *River Gapeau*, a little to the westward of the salt-houses: the entrance to this rivulet is defended by a redoubt, near which is a magazine.

Vessels taking the *Great Passage*, will find a small *Bay* on the N. western side of *Portcross Island*, where galleys commonly anchor: a *Castle* stands on the northern point. There is a rock under water off the southern point of *Baguieu Island*, which must be carefully avoided in coming through the *Little Baguieu Passage*; and the western *Point of Portcross* is rocky. South of *Portcross Island* is the *Gabinierie Rock*, in latitude $43^{\circ} 59' 6''$ N. and longitude $6^{\circ} 22' 40''$ E., with deep water all round it.

In sailing through the *Passage of Portcross*, or between it and *Levant Island*, there is a rock under water; steer, therefore, near the *Levant Island*, and you will readily avoid it.

To the eastward of *Levant Island* lie several *rocks*, running off nearly a mile, one of which is above water, appearing like a boat, and is called *L'Esquilladon*: outside of this is the *Esquillade*, upon which the sea breaks in bad weather. There are also others nearer the *Island of Levant*, and lying directly off the eastern side of *Cape Calerousse*: these must be carefully avoided.

In following the land, about $1\frac{1}{2}$ mile, N. E. $\frac{1}{2}$ E. (*E. N. E. $\frac{1}{2}$ E.*) from *Ribaud*, is *Cape Esterel*, close to which is a *rock* above water: this *point* is moderately high, and makes the beginning of the *Bay of Hyeres*. You may anchor within a cannon-shot to the northward of the *rock*, in the *Port of Badine*, in 5 and 6 fathoms, sandy ground, with S. S. W. and west winds; but should they veer to the east, you must go on to *Gapeau*: here you will see a large *storehouse*, looking like a *castle*, and near it a small *river*, where, as before observed, you may have water. Eastward of this *storehouse* are several *salt-ponds*. Gallies anchor before the *storehouses* within a cannon-shot of the shore; but men-of-war ride further out, in order to be in readiness to get under weigh. The coast from *Badines* is low and sandy, and continues the same to *Gapeau*. E. by S. (*E. S. E. $\frac{1}{2}$ S.*), $5\frac{1}{2}$ miles from *Gapeau*, is the *Fort of Breganson*, erected upon a little steep round *island*, and having some *rocks* near it: between *Breganson* and the main is a passage for boats; and north of it is an anchorage for gallies. Two miles further is the eastern point of *Hyeres Bay*, named *Cape Benat*, high and steep on all sides; but must not be approached nearer than a quarter of a mile, on account of a *shoal* jutting off it about a cable's length; at the east end of which are several *rocks*, and one great one, called *Cristau*, close to which is a *creek*, where gallies may anchor, with West and N. W. winds, having hawsers on shore: $2\frac{1}{2}$ miles to the north-eastward of *Cape Benat* are several *rocks*, and a small *cove*, called *Lavendu*: here you may anchor when sailing to the westward, sheltered by *Cape Benat*; but with easterly winds it is more advisable to run for *Gapeau*.

From *Cape Benat*, N. E. by E. $\frac{1}{2}$ E. (*E. by N.*), distant $1\frac{1}{2}$ mile, is the *Fornigue*, a *rock* resembling a boat: you may near it to within a cable's length without danger. Half a mile West (*W. N. W. $\frac{1}{2}$ W.*) of this, is the *Schede Gourron*, a spot of foul and rocky ground, with 10 and 27 fathoms near it.

From *Cape Benat* to *Cape Taillat* the course is E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ S.*), about 13 miles; and from the N. E. side, or *Esquillade Point* of *Levant Island* to *Cape Taillat*, the course is E. N. E. $\frac{1}{2}$ N. (*E. $\frac{1}{2}$ N.*), about 9 miles. A little easterly of this course is a *rock* under water; therefore, in coming from the east, and intending to anchor at *Hyeres*, steer nearer to *Cape Taillat*, until you have got to the westward of these *Capes*; after which, sail as you please to *Breganson Fort*.

BORMES ROAD is about 2 miles to the northward of *Cape Benat*; it is bounded to the southward by *Point Canal*, and to the northward by *Point Gourdon*: between them is a *sandy beach*, watered by the *River Bataile*: the ground here is good, with from 6 to 9 fathoms; but it is not safe to be caught here with southerly or S. easterly winds, which throw in a heavy sea. The *Town of Bormes* stands nearly 2 miles inland. About three-quarters of a mile to the north-eastward of *Point Gourdon* is *Cape Narvau*, to the westward of which is the *sandy cove* of *Lavendu*; and further to the northward is the *Town of St. Clair*, having several *rivulets* near it. The coast here turns to the eastward, making several *rocky points* which project out to seaward, with small *sandy coves* between: the most prominent of these is called *Cape Negret*: this bears from *Cape Benat* N. E. (*E. N. E. $\frac{1}{2}$ N.*), distant $4\frac{1}{2}$ miles.

About $8\frac{1}{2}$ miles N. E. by E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ N.*) from *Cape Benat* is a *Point*, with a *tower* and *fishermen's storehouses* upon it, called *Cape Cavalaire*, where vessels may anchor in 3 or 4 fathoms, or off the mouth or entrance in 10 and 12. There are several *rocky points* of land between *Cape Negret* and *Cape Cavalaire*, with small *sandy coves* between them: in one of these is the *Village of Royan*. There are also two *sandy coves* between *Cavalaire* and *Cape Taillat*, separated by a large *point* of land, where you may anchor with the winds at E. and N. E. in 15 or 20 fathoms; but with N. W. winds you must remove to *Cavalaire*, where you will be safe.

Cape Taillat, in latitude $43^{\circ} 7' 45''$ N. and longitude $6^{\circ} 39' 10''$ E. is a long *point* stretching into the sea; at a distance it seems to be an *island*: it is rather high, having a *watch-tower* upon it, called *Camarat*, and close to the *point* some *rocks* above water. Ships may anchor, in 6 and 7 fathoms, on either side of this *Cape*: opposite to the low land are several *rocks*. Off the land are an oval-shaped *island* and two *rocks*, between which gallies may pass, and have 8 fathoms water; this is called *Camarat Passage*. To the eastward is a *rock* under water, very dangerous; unless, therefore, you take *Camarat Passage*, you must give this *rock* a good berth. To the N. E. by E. (*E. N. E. $\frac{1}{2}$ E.*)

distant $3\frac{1}{2}$ miles from *Camarat Tower*, is *Cape Lardier*, in latitude $43^{\circ} 11' 45''$ N., and longitude $6^{\circ} 39' 15''$ E., with some rocks before it. Further north is a great sandy shore, called *Pampalaune*, where vessels may anchor in 4, 5, and 6 fathoms, good holding ground; and to the southward are some *fishermen's houses*, near which, and a little island, galleys may anchor with a hawser on shore: but this latter anchorage is not good, unless with S. W. or West winds. Further N. easterly is *Cape de la Moutte*, off which are three rocks above water, called *Teste de Can*. *Point Madrague* is still more northerly, and has several rocks off it, both above and under water, some of which are nearly 2 miles from the land: the marks to know the outermost are, when *Point Camarat* is between the two western rocks, called *Teste de Can*, and *Point Rauiouet* is in one with *Mount St. Pierre*, which is far inland.

GULF OF GRIMAUD. To sail into the *Gulf of St. Tropez*, or *Grimaud*, keep *Grimaud Castle*, which is at the bottom of the *Bay*, in one with the *Point Rauiouet*; this will clear you of the outermost rock: and in coming from the westward, you must steer clear of the rocky islands of *Teste de Can*, until you obtain the above-mentioned mark of *Grimaud Castle* in one with *Point Rauiouet*. To the south-westward is the *Town of St. Tropez*, standing upon a low point of land, and between them the roadstead of *Canabiers*, or *Canoubiez*, where are 4, 5, 6, and 7 fathoms water, muddy bottom; the best anchorage is between the two points, but not too far in: N. W. winds are here very troublesome. *St. Tropez* is computed to have a population of 4000, who are chiefly employed in the tunny and pilchard fisheries, or in the coasting trade. It has a citadel and a navigation school; but is most remarkable for being the place where *Bonaparte* embarked for the Island of *Elba*, in 1814. N.N.W. & N. (North) of *Rauiouet*, and near a point where a few *fishermen's houses* are, some rocks, called the *Sardinax*, lie; they are low, and almost level with the water's edge, stretching nearly half across the *Gulf*: you must be careful to give this side a good berth, and when you have got beyond them, there is no other danger. At the town of *St. Tropez* there is a small mole, and a little above the town, on a rising ground, is a fortress, with some windmills near it. To the N. E. (E. N. E. & N.) is a point of land, called *Cape Alexandre*, beyond which is *Cape St. Ego*, the western point of the *Gulf of Frejus*.

GULF OF FREJUS. From *Cape Alexandre* to *Cape St. Ego* the course is N. by E. (N. N. E. & E.) distant 3 miles, the coast running high. The *Town of Frejus* stands about the middle of the *Gulf*, at a little distance from the sea-side, being in latitude $43^{\circ} 28' 15''$ E., and longitude $6^{\circ} 44' 20''$ E.: near it a small river empties itself into the sea; and to the westward runs another river, called *Argens*. To the eastward are two other rivulets, and beyond them a small village, called *St. Raphael*. Off the eastern shore are two islands, named the *Lions*; from the outermost of these to *Cape Ego* is about 2 miles. There is good anchorage in the *Gulf of Frejus*, with from 11 to 7 fathoms, but it is open to the southerly winds. Nearly 3 miles E. by N. (E. & S.) from the *Lion Islands*, is *Derimont Point* and *Tower*, high and steep, the land having a red appearance; and near it, behind this point, is the *Bay of Agay*, or *Nagaye*. There are two rocks under water, one to the S. E. and the other to the S. W.; the former with 8 feet upon it, the latter with only 5. It is recommended to give them a good berth; and having passed to the eastward of the watch-tower, steer N.N.W. & N. (North), and enter the *Bay*. The mark for anchoring is when a tree on the starboard side comes behind the fort: a cable may then be fastened upon the northern shore, and you will have from 7 to 4 fathoms water, the ground weeds and mud. This *Bay* is open to the south-eastward, and N. W. winds blow with great violence. Do not approach too near the *Fort*, or where the *Round Tower* stands, there being rocks off both.

About $3\frac{1}{2}$ miles from the entrance to *Agay* is a large steep mountain with trees upon it, of a reddish cast, called *Cape Roux*. Between *Agay* and this is an island, called the *Vielle de Agay*, and some rocks stretching southward from the shore, called the *Boutte*, or *Boat*. Further in the sea are some rocks under water, upon which the sea breaks: there are passages between these rocks, but it is advisable to go to the southward of them altogether.

ISLES ST. MARGARET AND HONORIA, called also the *Lerin Islands*. About 5 or 6 miles E. N. E. & N. (E. by N.) from *Cape Roux* are the islands of *St. Honoria* and *St. Margaret*; the main land is every where mountainous, but these islands are flat, and near one another. *St. Honoria* is the southernmost, having on its southern point an *Abbey* of Benedictine Friars; opposite to which is a dangerous ledge of rocks, some part above, and some under water, called the *Friars*, or *Monks*: there is also, off the eastern point, a large rock, resembling a boat, with some smaller ones near it. The

Isle of St. Margaret is larger, and at its northern end somewhat higher than *St. Honoria*. At the north side of the island is the *Fort* or *Citadel of Monterey*. Between the islands is a passage, fit only for galleys, having in some places not more than $1\frac{1}{2}$ fathom water: you may anchor there upon occasion, especially upon the western entrance. South-east of the island is a flat island, called *Tradeliere*, and also a *sunken rock* near it. Under the protection of the *citadel* upon the northern end of *St. Margaret*, vessels may anchor, to the eastward of it, in 6, 7, 8, and 9 fathoms.

NAPOULE. To the north-westward of the *Lerin Islands* is the *Gulf of Napoule* and *Town of Cannes*, standing near the sea, and having a *castle* on a point to the south-westward; you must beware of this point, because of some rocks which are about it under water: galleys commonly anchor here in fine weather. It was at this place *Buonaparte* landed on his return from *Elba* in 1815. The population is computed at 3000: here is a pilchard fishery, and the environs produce good wines, olive oil, and fruit for exportation. The *Village of Napoule*, which gives its name to the Bay, stands W. S. W. $\frac{1}{2}$ S. (W. $\frac{1}{4}$ S.), distant $3\frac{1}{2}$ miles from *Cannes*. To the northward of *Napoule*, and between it and *Cannes*, is the little *River Siagne*. A vessel may lie before *Napoule* in from 8 to 10 fathoms, sheltered from the S. W. winds round to the north, but exposed to all others; or may run over towards *Point Croisette*, and anchor equidistant from *Cannes* and the northern point of *St. Margaret*, in from 16 to 23 fathoms. The *Town of Cannes* is in latitude $43^{\circ} 33' 20''$ N., and longitude $7^{\circ} 0' 15''$ E.

GOURJEAN. From the *Island of St. Margaret's East Point* to *Point Ilette* the distance is $2\frac{1}{2}$ miles E. N. E. $\frac{1}{4}$ N. (E. $\frac{1}{4}$ N.); and between these two points is the *Gulf of Gourjean*. In entering, give both points a good berth; for off each lie some rocks. *Cape Garoupe* is nearly a mile beyond *Point Ilette*, of moderate height, with a *Chapel* at the top, which, with the *Lerin Islands*, will readily point out the *Gulf of Gourjean*. There is good anchorage in this Bay for all kinds of vessels; but almost in the middle is a rock, called *la Boutte*, the *Boat of Gourjean*, or the *Ants*, with some breakers about it. Large ships should pass between this *Rock* and *St. Margaret*, which is clear from danger; but between the *Rock* and *Point Ilette* are some shoals, with 3 and 4 fathoms water over them, rendering that passage hazardous, especially if you are not well acquainted with their position. Having passed the *Boat*, proceed north-easterly, and anchor before the square tower of *Gabells*, within cannon-shot of the shore, in 6 and 7 fathoms water, sand and mud, or further out in 15 and 18 fathoms; or with N. W. winds, over against *Fourcade Point* to the westward, carrying your moorings on shore. With the winds at N. E. or E. you may anchor in the small Bay of *Pilon*, coming not too near the coast. The winds which are most troublesome in this Bay, are those from the S. and S. E. Good water may be procured here, near the *Tower of Gabells*, on the north shore, close by some houses which are standing there.

To the north-eastward of the *Cape of Garoupe* is *Cape Gross*: both these Capes have rocks under water about them, and therefore require a good berth in passing; and further is a rock above water, with an anchorage and some landing places, called *Vacon*. Almost at the bottom of this Cove is another rock above water: between both rocks you may anchor in 4 and 5 fathoms, weeds and mud, and lie sheltered from S. and S. W. winds.

Having rounded *Capes Garoupe* and *Gross* at a convenient distance, a N. $\frac{1}{2}$ W. (N. by E. $\frac{1}{4}$ E.) course will carry you abreast of *Point Negre*, off which lies the rocky islet *Grenille*, from which the *Mole of Antibes* bears N. W. $\frac{1}{4}$ N. (N. by W. $\frac{1}{2}$ W.) distant nearly a mile. The coast between *Grenille* and *Antibes* bends inward, and forms a kind of bay, within which is a small islet, called *Pendu*; the shore is low and sandy.

ANTIBES. This is one of the most ancient towns in *Provence*, and now included in the Department of the Var, being the easternmost port in the Mediterranean under the jurisdiction of France. The town comes down to the edge of the sea, and is well fortified on all sides. Before the town is a *Mole*, built on a rocky point, having a half-moon battery upon it to defend the entrance, and a small square fort, called *Quarre*, on its northern point. There is very little water, unless about the *Mole*. It was formerly much deeper; but two-thirds of it is now choked up with sand and mud, so that the other part, within the *Mole*, will only admit small vessels. The breadth of the entrance, between the *Mole-head* and the northern shore, is only 150 fathoms. The depths of water within and near the *Mole* are from 15 to 18 feet. About 100 fathoms N. N. E. (N. E. $\frac{1}{4}$ N.) from the point of the great bastion which is on the middle of the *Mole*, is a ledge of rocks, with only one foot of water over them, and near them from 16 to 20 feet. Vessels may pass between the *Mole* and this ledge, with from 20 to 25 feet water, by keeping a little nearer to the half-moon battery than to the ledge; but the

safest way will be to pass to the eastward of the *rock*, and run in at discretion by the northern shore, on the top of which stands *Fort Quarre*; then steer for the *Port*, and anchor at the bottom of the harbour alongside the *Mole*, having your stern towards the town: thus you will lie sheltered from all winds and sea, although the E. N. E. wind blows full at the entrance. The N. W. wind only can disturb a vessel when lying here; therefore due precautions should be taken to guard against it. The trade of this place is of little consequence; the inhabitants are not more than 6000, and these are chiefly employed in the sardel fishery, and in the manufacture of earthen-ware. It is situated in latitude $43^{\circ} 34' 40''$ N., and longitude $7^{\circ} 7' 50''$ E. This *Port* is very difficult of access when the wind blows from the East and S. E., for then the sea generally runs high.

From *Antibes* the coast runs N. N. E. $\frac{1}{2}$ E. (*N. E.*) full 2 leagues, to the *River Var*, which separates *France* from *Savoy*. The coast between is a low sandy beach, off which, at a short distance, the depths are 5 and 6 fathoms; but it is entirely exposed to *Levanters*, or easterly winds. The *Var* is a considerable river, rising from *Mount Cemelione*, among the Alps; and thence flowing southward, forms the present maritime boundary between *France* and *Piedmont*, now the *Sardinian Duchy* of *Genoa*. Its entrance lies in latitude $43^{\circ} 39' 50''$ N., and longitude $7^{\circ} 10' 10''$ E.; but it is not navigable by shipping.

SECTION V

THE SARDINIAN TERRITORY, OR GRAND DUCHY OF GENOA.

FROM THE RIVER VAR TO LA SPEZIA AND SARZANA.

Variation, One Point and a Half West.

NICE or NIZZA. From the entrance of the *River Var* the shore takes an easterly direction, running towards the *Town of Nice*, a distance of about 5 miles: the coast within this space is low, but rises up considerably inland. The *Town of Nice* is situated in latitude $43^{\circ} 41' 20''$ N., and longitude $7^{\circ} 16' 49''$ E., and lies at the foot of an amphitheatre of hills, which are covered with villas, gardens, and groves of olive, orange, and lemon trees. The lofty mountains of the Alps terminate the prospect on one side, and the expansive sea the other; while from the centre of the basin on which the town is built, a high and pointed rock rises up, and adds much to its picturesque effect. *Nice* is surrounded with a rampart, and divided into the new and the old town; the streets of the former are mostly straight and regular, but those of the latter are narrow and crowded. There are two public squares, one of which, surrounded with porticos, is extremely elegant; and the other is bordered by a fine terrace, and serves both for a public walk, and a dike against the encroachments of the sea. The harbour is protected also by a *mole*, spacious and secure, admitting vessels of 300 tons burthen; but the entrance to the *River Paglion*, which divides the town, and over which is a bridge, is so narrow that large vessels cannot enter. Its exports consist principally of oil, wine, and silk, with essences, perfumes, and liqueurs; there are also manufactories of leather, soap, paper, and tobacco; but these are on a small scale. The population is estimated at 19,000.

The *Harbour of Nice* is small, and lies open to the S. E.; between the piers there are only 12 feet water, and the anchorage before the town is unsafe. To the westward of the harbour is the *citadel*, which, standing on a large point of land, protects all the south side of the town. When a vessel approaches the harbour, and hoists her colours, the harbour-master will, if necessary, order a boat from every vessel in the port to assist in towing you into the harbour; and the same assistance takes place on your departure.

VILLA FRANCA. One mile and a quarter E. S. E. $\frac{1}{2}$ E. (*S. E. $\frac{1}{2}$ E.*) from *Nice* is *Cape Mala Lingua*, the eastern point of *Villa Franca Bay*. As the road from *Nice* to *Villa Franca* is in bad condition, the passage is usually made by water, and occupies

about half an hour: during this journey the eye is fatigued by the continued glare of rocks, bleached by the sun, and worn by the waves. This Bay is spacious and deep, but somewhat open to the southerly winds; while from those of every other quarter you may ride land-locked, being sheltered on the western side by *Mont Alban*; on the north by very high mountains; and on the east by a peninsula, or neck of land, covered with olive and other fruit-trees, which divides the Bay from the *Road of St. Souspir*. The lighthouse stands on the point of this eastern peninsula, near *Cape Mala Lingua*, and is defended by several formidable batteries: it is a white building, and the land being high behind it, makes it have the appearance of a sail when seen far off.

The *Town of Villa Franca* is built in the form of an amphitheatre, at the N. western part of the harbour, and has a population of from 2000 to 3000; but the commerce is removed, and carried on at *Nice*. Wood and water are to be had at the naval arsenal, together with refreshments of all sorts, and very good wines. The landing-place is at the *Town*; but in fine weather you may land in any part of the Bay.

The Bay is about a mile in depth, and at its narrowest part one-third of a mile wide. It may easily be distinguished, when coming from the westward, by the square fort of *Mont Alban*, which appears above the tower on the western point, and has a windmill near it; and in coming from the eastward, by the small Fort of *Ospicio*, and the lighthouse on *Cape Mala Lingua*. This lighthouse is in latitude $43^{\circ} 40' 18''$ N., and longitude $7^{\circ} 19' 37''$ E. The Cape stretches out far to the seaward, and is very high at its centre.

Between the two points of the Bay there are from 35 to 40 fathoms water, and your course up the Bay will be N. by E. (*N. N. E. $\frac{1}{2}$ E.*): the depths of water gradually decrease as you approach the town. Before you reach the castle, you will see an hospital, or infirmary, and between them a mole, shaped like a Roman L, at the head of which is a heap of stones, level with the edge of the water. The place of mooring is just off the town, with a good scope of cable to the southward, and a hawser on shore, fastened to one of the marble pillars erected for that purpose. Large vessels anchor off the mole-head, and moor athwart the harbour with a cable each way; but they are more exposed than those which lie before the town. You may water at the town, or at a convent above. You are most exposed to south winds; and south-westerly winds generally bring a great swell.

ST. SOUSPIR. Rather more than half a mile from *Cape Mala Lingua* is *Cape St. Souspir*, or *Ospicio*, upon which is an old square fort, with a chapel near it, standing on a rocky point, steep on all sides. To the northward is *Boze* or *Bosc Tower*, with a small chapel. Between these is the Bay of *St. Souspir*, where ships and galleys, coming from the eastward, may anchor with westerly winds, when they cannot reach *Villa Franca*; but they must not come too near *Cape St. Souspir*, there being some rocks even with, and, sometimes, covered by the water, lying off that part.

MONACO. E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ S.*) about 6 miles from *Cape St. Souspir*, is *Monaco*, a small fortified town, standing upon a point of rocks, which stretches eastward into the sea, steep on all sides, and almost inaccessible. Behind this point galleys ride, having a larboard anchor to the N. E., and two fasts on shore towards the town, with a very good one from the stern to the N. W.; in this place are 3 and 4 fathoms, mud and weeds. You must not come within a cable's length of the shore, because of some rocks and shoals under water. N. W. winds are frequently violent, and E. S. E. blow full into the Bay, causing so great a sea, that it becomes dangerous to land. There is a large house below the fort, with some fishermen's huts; and at the bottom are some gardens, in which is a well of good water. There is also a watering-place N. eastward of the town, at a rivulet, near some mills; and beyond this rivulet, on the top of some hills, is the *Village of Rocca-bruna*. *Monaco* is a small place, and now of little commercial importance: nevertheless, it has a garrison, and a population estimated at about 1300. The inhabitants, in small barks, export oil, fruit, &c. to *Nice*, and also to *Marseilles*. It is situated in latitude $43^{\circ} 40' 40''$ N., and longitude $7^{\circ} 26' 18''$ E. To the W. N. W. $\frac{1}{2}$ N. (*N. W.*) of *Monaco* you will see a tower, called *Turbia*; and at the west end, adjoining to the town, are an old castle, and a magnificent palace, the former residence of the reigning Prince.

MENTON. About 5 miles E. N. E. $\frac{1}{2}$ E. (*East*) from *Monaco* is a point of moderate height, called *Cape St. Martin*, upon which are a battery and chapel; and 3 miles beyond it, the small *Town of Menton*, which faces the sea; between these is a sandy hollow, with shelter from S. W., West, and N. W. winds. You may, in coming from the sea, know this coast by a high mountain, called the *Table of Monaco*: there is also another hill above it, shaped like a sugar-loaf, sharp at the top, and called *Mount Cougourde*, or the *Needle*.

of *Menton*. Both these may be seen far off, and are good marks to distinguish the land. You may anchor before the *Town of Menton* in 10 and 12 fathoms; but the ground is *rocky*, and you will only be sheltered from off-shore winds.

VENTIMIGLIA. Four leagues E. N. E. $\frac{1}{2}$ E. (*East*) from *Monaco* is the *Town of Ventimiglia*, in latitude $43^{\circ} 44' 20''$ N., and longitude $7^{\circ} 42' 36''$ E., standing near the sea, and to the eastward of a large point, on the side of the river *Roya*, which has a bridge over it. Above the town is a considerable *fortress*; and to the right is a little village, close to a small river. Gallies sometimes anchor before *Ventimiglia* in fair weather, sheltered from E. N. E. and east winds by the *Point of Bordighera*; but the ground is not good.

BORDIGHERA. Three miles and a half eastward of *Ventimiglia* is *Bordighera*, a small town, looking like a *fortress*: to the westward of this are a *watch-tower* near the sea, and some *fishermen's huts*. You may sail near this point, though there are some rocks above water by the shore.

SAN REMO. From *Bordighera Point* to the large round *Point of Nero*, with a *watch-tower* upon it, the distance is about $2\frac{1}{2}$ miles; and $3\frac{1}{2}$ miles to the eastward is the eastern *Point of San Remo*, called *Cape dell'Armi*, which also has a *square tower* upon it: between these two points, and towards the middle, is the *Town of San Remo*, standing upon rising ground, and having some gardens with orange, lemon, and palm trees about them. *Cape St. Remo* is in latitude $43^{\circ} 47' 30''$ N., and longitude $7^{\circ} 49' 53''$ E. There is a small mole before the town, with 6, 7, and 8 feet water near it. Ships anchor further from shore, about one mile off the land, in 7 or 8 fathoms; but they are exposed to all winds, though the ground is good. About $1\frac{1}{2}$ mile from *Cape dell'Armi* is the little *Village of Riva*, and further on, those of *St. Stephen* and *St. Lorenzo*; the latter being about 4 miles from *Cape dell'Armi*.

Further eastward is a small fortified town, standing on an eminence, named *Port Maurizio*, the mole of which is in latitude $43^{\circ} 54' 49''$ N., and longitude $7^{\circ} 59' 36''$ E.: a little to the eastward of the town are a *convent* and some small houses. Off this port vessels may anchor in 15 fathoms, but entirely open to all but northerly winds.

ONEGLIA. About $1\frac{1}{2}$ mile to the north-eastward of *Port Maurizio* is *Oneglia*; and $1\frac{1}{2}$ mile East (E. S. E. $\frac{1}{2}$ E.) is *Cape Oneglia*, forming a large round point, with a *watch-tower* upon it.

The *Town of Oneglia* is surrounded with walls, and has the small *River Impero* passing on its western side: towards the sea are three forts, one at each end, and the other near the middle of the town; and upon *Cape Oneglia* is an *octagonal fortress* to defend the anchorage. Gallies ride opposite to the town, within cannon-shot, in 5 and 6 fathoms, mud; and ships further out, the bottom being good holding ground, but exposed to the sea winds.

DE LA MELE. About 5 miles N. E. $\frac{1}{2}$ E. (E. N. E. $\frac{1}{2}$ E.) from *Cape Oneglia* is *Cape de la Mele*, a high round point, having a *square tower* on its top, with some houses adjoining, in latitude $43^{\circ} 58' 10''$ N., and longitude $8^{\circ} 11' 5''$ E. Between these two Capes is the *Town of Dian*, before which, at a mile's distance, you may anchor in 7 or 8 fathoms water: bring the steeple of the church, which is almost in the middle of the village on the sea-side, to bear in one with another standing higher up in the country. This anchorage is frequently called the *Ditch of Dian*; the anchors hold well, and the bottom is fine sand and mud. E. N. E. $\frac{1}{2}$ E. (*East*) of *Dian* is the *Village of Cervo*, and between it and *De la Mele* that of *St. Anthony*.

About 6 miles E. N. E. $\frac{1}{2}$ N. (E. $\frac{1}{2}$ N.) from *Cape de la Mele* is *Point Albenga*; between them is a kind of Bay with a sandy shore; nearly midway is the *Town of Allasio*, or *Coscione*, which runs a good way upon the beach, having three small forts, and opposite the middlemost a mole, or quay for landing goods, &c. To the eastward are several villages, and two *watch-towers*: to the westward is a rivulet, with a bridge over it. You may anchor before the *Town of Allasio* a mile off-shore, bringing the steeple at the west end of the village in one with a steeple further inland, where you will have from 10 to 18 fathoms, sand and mud, good holding ground. The current generally sets to the S. W. Anchor not too near the shore, because of the sea-winds.

Off *Cape Albenga* is the *Island of Gallinara*, about a mile in circumference, lofty, and with a tower on its summit: between this and the land vessels may pass in 8, 9, and 10 fathoms, keeping nearer to the island, because of a spit of sand running from *Cape Albenga*. To the northward is the *River of Arosia*, almost at the entrance of which is a fort, and to the westward a monastery: the shores are low

and sandy, with some trees. The *Town of Albenga* is about a mile up the country, with several towers about it.

From the *Island Gallinara* to *Cape Noli*, in latitude $44^{\circ} 11' 0''$ N., and longitude $8^{\circ} 23' 20''$ E., the coast winds circularly, having the *Town of Loano*, which lies about $3\frac{1}{2}$ miles N. N. E. $\frac{1}{2}$ E. (N. E.) from *Albenga*, where you may anchor in 10 or 12 fathoms water; beyond this is the *Village of Pietra*, further on the *Village of Borzi*, and beyond that *Finale*, off which you may ride in from 5 to 8 fathoms: this latter town bears W. S. W. $\frac{1}{2}$ W. (West) of *Cape Noli*. You will here see two forts upon a hill, near each other; and at the foot of this hill is the village: there is no shelter from the sea-winds at any of these places.

NOLI. To the eastward of *Finale* is the small *Village of Varigotta*; and a little further is *Cape Noli*, very steep, and smooth at top. The *Town of Noli* is about 2 miles to the N. N. W. westward of the *Cape*, and may easily be known by the several towers adjacent: its inhabitants are chiefly fishermen. You may anchor before *Noli* with S. W., West, and N. W. winds, in from 8 to 10 fathoms. *Espitonna* is another small village to the northward of *Noli*; and 3 miles N. E. by N. (N. E. $\frac{1}{2}$ E.) from *Noli* is the *Island of Bersezzi*, with some ruins upon it; it is about 350 fathoms off the main land: between is anchorage in 7 or 8 fathoms water. Should you take this passage, keep mid-channel, avoiding the rocks which appear above water. You may anchor also to the westward of this island, and have 12 fathoms water close to the island.

VADO. A little further N. N. W. $\frac{1}{2}$ N. (North) you will pass the *Village of Bersezzi*, situated on a mountain covered with trees, and reach the *Cape of Vado*, projecting out to seaward, and having some fortifications in ruins upon it, which appear at a distance rather white: steer round this *Cape*, and you will be in the *Road of Vado*, where you will see some houses, and a small chapel, before which you may anchor in 5 or 6 fathoms. There is a small fort with 6 or 7 guns to the E. S. E. $\frac{1}{2}$ E. (S. E. by E.): you may carry your fasts on shore, and have an anchor down to the N. W., in from 5 to 10 fathoms, the bottom mud and weeds; but avoid the fort, because thereabout are some rocks under water. East and S. E. winds cause a great swell here: as do those from the S. W.; but the greatest precaution should be taken against the N. westers, which are sometimes very violent: the ground holds well, and forms a good roadstead with winds from the South to S. S. E. Fresh water may readily be obtained in plenty. The *River Segno* is between *Fort Lorenzo* and *Vado*, forming a great flood of water, especially in the winter; and beyond this river, to the northward of *Vado*, is the little *Stream of Quigliano*.

SAVONA. About $3\frac{1}{2}$ miles N. N. E. $\frac{1}{2}$ E. (N. E.) from *Cape Vado* is the *Town of Savona*: between both is a village, called *Fornaci*, with several manufactories for making earthen-ware; and near this village runs the small *River of St. Bernard*.

The *Town of Savona* is large, and was formerly a capital port, capable of receiving large ships; this the Genoese have destroyed, by sinking ships, and blocking up the entrance. It has a considerable fortress, or citadel; and from the town runs a mole eastward into the sea: a bank of sand stretches from side to side, having from 1 to $1\frac{1}{2}$ fathom upon it. The mark for entering is to bring the left side of the roof of the town-clock a little open to the left of a remarkable house in the town; the larboard side has the deepest water. The channel lies to the N. E. $\frac{1}{2}$ E. (E. N. E.), and is very narrow: you may ride with a hawser on the mole, in from 12 to 14 feet; but within the mole the water is much shallower. Between *Vado* and *Savona* are the several villages along shore of *Zinora*, *Loggino*, *Fort St. Mareel*, *Fornaci*, and *Borgo Inferiore*; also the *Rivers Guigliano* and *St. Bernard*, the latter of which is about half a mile before you come to *Savona*.

GENOA. From *Savona* to *Genoa* the coast runs N. E. by E. $\frac{1}{2}$ E. (E. by N. $\frac{1}{2}$ N.) to the lighthouse, a distance of 19 miles: the land is all along high, and has the villages of *Albizola*, *Prinesa*, *Colle*, *Varazze*, *Mela*, *Cocolato*, *Arenzana*, *Piano*, *Voltri*, *Parmaro*, *Castellazza*, *Sestri Ponente*, and *Cornigliano* between. *St. Pietra de Arena* is a suburb of the *City of Genoa*, full of magnificent buildings, and runs along a sandy shore to the walls of *Genoa*.

Genoa is large, standing at the foot of some lofty mountains, and on the northern part of a *Gulf* of that name: on the land-side it is surrounded by a double wall, of which the inner one encloses the *City*, and has a circumference of nearly 6 miles, while the outer wall takes in several hills, and has a circuit of 12 miles: it is therefore a place of great strength. When viewed from the sea, *Genoa* and its environs

appear in the form of an amphitheatre, where the harbour presents the centre, and the City its side: to the left are the lofty Alps with their snowy summits; to the right, and in the back grounds, are the Apennines. The port before the town is formed by two *Moles*; which are 16 or 18 feet above the sea: that on the east side is called the *Old Mole*, that on the west side the *New Mole*; and the heads of these *moles* are about 300 fathoms asunder. Two *towers* have been erected upon these *moles*, that on the *New Mole* serving for a *lighthouse*, and that on the *Old Mole* forming a *battery* for the defence of the harbour. The *lighthouse* is a lofty square tower, painted white, with a lantern at its top, and visible at a great distance. From this *tower* signals are made, to denote the approach of vessels from sea.

In 1823, the Government of Genoa issued the two following proclamations.—October 23d. First Proclamation from the Agent to Lloyds at Genoa. "Finding the harbour much exposed to south winds, it is determined to lengthen the *Mole* or *Pier* which lies to the east of the City, 300 French feet, in a direction bearing W. N. W.; and in consequence of which, on the 21st instant, a grand platform or hulk, 82 French feet in length, 40 in width, 38 deep, of which 8 feet will be above the water line and 30 under, was sunk at the above distance from the extremity of the *Pier*: its head lies at S. S. W., and the stern at N. N. E. We therefore think it our duty to make this communication, that navigators, entering this port on a dark night, may be aware of this improvement, and keep more to the middle of the harbour, to avoid accidents."

Second Proclamation. "With reference to our letter of the 23d, we have now to acquaint you that the platform or hulk, which was sunk at the distance of 300 feet from the extremity of the *Old Mole*, and upon which men were working day and night, in order to fill it up with bricks and stones, cemented by pozzulana, a strong gale from the south came on, with a rough sea, on the 31st of October, which destroyed all the hulk which was not filled up; so that there remains at present but 10 feet of water on the most shoaly part of the platform. Work cannot be recommenced until next spring; in the meantime Government has ordered a pontoon to be got ready, which is to be moored with the chains close to the spot where the platform has been sunk, and to have a light hoisted there, as a warning to navigators. We are apprehensive that in very rough weather the vessel will not be able to keep her station, and we therefore advise masters of vessels, on entering this port, to keep towards the middle or left side of it, to avoid getting foul of the hulk, which lies with her head to the S. S. W., and stern N. N. E."

We are uncertain whether the above intention has been completed; but it will always be advisable for the mariner, in entering the harbour, to give the *point* of the *Old Mole* a berth, and sail near to the *New Mole*, where he will have 12 and 10 fathoms water. There will be no difficulty in steering between the two *mole heads*: the entrance is clean, with plenty of water, and room enough for the largest ship. Being within, you may moor behind the *moles*, with a cable or two upon them, and an anchor out a-head. There is space enough for four or five sail to lie at their anchors, and moor with a cable each way, which will be the best way in winter, or when N. and N. E. winds sweep down from the mountains behind the City. Within the *Old Mole*, on the eastern side, is the usual anchorage for merchantmen, where the water is too shallow for large vessels. There is anchorage also outside of the *moles*, at the distance of 2 or 3 miles off, in from 10 to 24 fathoms, the *lighthouse* bearing about N. N. W. (*N. $\frac{1}{2}$ W.*); the bottom clay, and holding well. S. W. winds cause a great swell, which the new projection of the *moles* is well calculated to abate; but the north wind is often violent, and drives ships from their anchors. At the bottom of the *Port*, and about the middle of the *Town*, are two basins, one designed for galleys, the other for small trading vessels; they are both closed with chains. Genoa may be readily known by the *whiteness* of its walls, the many country seats about it, and by the *lighthouse*, which lies in latitude $44^{\circ} 24' 22''$ N., and longitude $8^{\circ} 53' 55''$ E. Wood is to be had very reasonably, and water in any quantity at the *Old Mole*, filling your casks in the boat with a hose. Provisions are plentiful, and vegetables and fruits in abundance. Its exports are principally velvets, plush, damasks, silks, oil, wines, and corn. The population is about 80,000, and the trade very considerable.

About a mile to the eastward of Genoa stands a large *village*, called *Besagno*; and between is a *river*, which in winter has a considerable stream of water. Sailing on, you will pass several *villages*, before which there is no anchorage; but at *Couvertou*, to the northward of *Porto Fino*, is a kind of *Bay*, where vessels may anchor in cases of necessity, or coming from the eastward with contrary winds; but

must beware of the West and S. W. winds. The *Town of Nervi* stands on this shore, about midway between *Genoa* and *Porto Fino*; the land throughout the whole space is elevated.

PORTO FINO. *Point Chrapa*, or *Cape Porto Fino* bears from the *Mole of Genoa* about E. S. E. (*S. E. $\frac{1}{2}$ E.*), and is distant above 4 leagues. It is a high and large headland, appearing round, steep on all sides, and may easily be known by some towers and a square fort on its summit; besides which, you will see a little chapel between two rocks, like an entrenchment behind a beach. It is in latitude $44^{\circ} 18' 27''$ N., and longitude $9^{\circ} 14' 30'$ E. You may sail near the *Cape*, and having rounded it, you will have entered what is commonly called the *Gulf of Rapallo*, when you will perceive the town and harbour of *Porto Fino*: the latter cannot be seen till you are almost opposite its mouth. Here is a quay, along which pillars are placed for vessels to moor by: you may anchor with contrary winds outside the port, in 30 fathoms water, bringing the hill, upon which the fort is built, open of the little chapel. *Porto Fino* is at the south-west entrance of the *Gulf of Rapallo*, which is large, and has about it several villages: at the bottom are two, separated only by a point, upon which stand a handsome palace and a church: the western village is called *St. Mary*, the other *St. Michael*: before this latter village you may anchor in 5 or 6 fathoms water, mud and weeds, or a little further from shore, in 15 or 16 fathoms. On the other side of *St. Michael's* is the *Town of Rapallo*, standing near the shore, where you may occasionally anchor, as also at *Paragy*, in 3 fathoms. Off the northern Point of *Paragy* is a fort. Besides these there are the towns of *Rivareto*, *Chrasari*, *Lavagna*, and *Cavi*. The middle of the *Gulf of Rapallo* is deep, and unless you anchor near the land, it will prove unsafe, being exposed to the south winds.

About 8 miles E. by S. (*E. S. E. $\frac{1}{2}$ S.*) from *Porto Fino* is a large point, appearing like an island, behind which is the *Village of Sestri Levante*; the land between is somewhat circular, and the coast high. Northward of *Point Sestri* is a large roadstead, with a sandy shore, where with S. and S. E. winds you may anchor: upon the Point is a watch-tower, and between it and the village is a small fort. There is anchorage also to the southward of *Point Sestri*. Sailing south-easterly, you will pass the villages of *Tragasa*, *Moneglia*, *Framula*, *Levanto*, and others, in your way to *Cape dell' Meseo*, which lies nearly in a S. E. $\frac{1}{2}$ E. (*S. E. by S.*) direction, distant from *Point Sestri* nearly 12 miles. The land is all high.

Point Meseo is large, high, steep, and stretches a good way into the sea, having a chapel on its summit; to the eastward is a little Bay, with a sandy shore, where you may occasionally anchor with a few galleys until you have fair weather; but do not let the sea-winds surprise you. The coast now continues high and steep for about 10 miles to *Port Venere*, lying at the western entrance to the *Gulf of Spezia*.

PORT VENERE. The village or town of *Port Venere* is at the foot of a mount of olives, in latitude $44^{\circ} 3' 30''$ N., and longitude $9^{\circ} 51' 30''$ E., on the sea-side, opposite to and to the northward of a large Island called *Palmaria*: this island forms the port, and its western end is but a short distance from the town. Gallies sometimes pass between *Palmaria* and the town; but you should be well acquainted with this passage, for almost against the middle of the island a long bank of mud and sand runs out, with not above 2 fathoms water: it is opposite to a Convent, which is built upon a point to the eastward of the town. The mark for this passage is to bring a house standing to the eastward on a hill, in one with some ruins near the sea-side; steer with this mark, and you will cross the bank in the deepest water. To the southward of *Palmaria* is the small Island of *Thin*, or *Tino*, with some rocks about its south end, which you must beware of. Between the Islands of *Tino* and *Palmaria* is a good channel, generally used, having 15, 16, and 18 fathoms water in it, and free from danger.

GULF OF SPEZIA. Vessels going into the *Gulf of Spezia* will see a rock above water, with *Fort la Schola* upon it, lying off the eastern Point of *Palmaria*; between them is a narrow channel, with 4, 5, and 6 fathoms water. When you have rounded the rock, you will perceive a Bay, upon the shores of which are great numbers of olive-trees: here gallies may anchor in 8 and 10 fathoms, with muddy bottom; or within a cable and a half of the shore, in 3 or 4 fathoms: even ships may anchor at this place, only taking care not to come too near to the point where the Convent stands, because on both sides the water is shallow. The *Gulf of Spezia* is large, and has good anchorage in several places, with mud and oozy bottom. In the middle of this Bay a spring of fresh water is said to arise from a depth of 6 and 7 fathoms, and occupies a surface of several yards around, before it mixes with the surrounding salt water. Having passed *Fort La Scola*, you will have, on your larboard

side, a considerable fortress called *St. Mary*; and further on the *Lazaretto*, and another fortress called *St. Andrew's*: between these are three large coves, where you will have 5 fathoms water, and lie almost land-locked. The *Town of Spezia* lies in the bottom of the *Gulf*, and the *Lazaretto* is in latitude $44^{\circ} 4' 10''$ N., and longitude $9^{\circ} 52' 26''$ E. It is surrounded with old walls, and has a small quay, to be approached with boats only, the water being very shallow for some distance. Before the town are several large trees, and through it runs a small river. To the starboard stands a convent, and near it two towers in ruins, with some rocks about them: to the eastward is marshy land, and about a league off, the Village of *St. Erenzy*, or *Terenzo*. Almost opposite to *Port Venere*, on the starboard side of the *Gulf*, is the small *Town of Lerici*; and 3 miles to the southward of that is *Cape Magrezo*, called also *Cape Corvo*: a little to the eastward of this is the *River Magra*, where the Genoese territory terminates. On the starboard banks of this river, about 2 leagues inland, is the *Town of Sarzana*; and not far from this is the *Fortress of Sarzanello*, built on a mountain of that name. Ships may anchor all over the *Gulf of Spezia*, which is said to be one of the best in the *Mediterranean*; they may even run ashore, in case of necessity, over against the town, the bottom being mud. This place has hitherto not received that attention its situation deserves; but its maritime advantages appear to have become now better understood, and its population is consequently increasing rapidly. The town is not ill built, but somewhat regular; and the number of villas, with plantations of olive and other fruit-trees, contribute to make its vicinity highly desirable. Its present inhabitants are computed at 5000. It is situated E. S. E. $\frac{1}{2}$ S. (*S. E. $\frac{1}{2}$ E.*) from *Genoa*, distant 47 miles; and from *Leghorn* N. N. W. $\frac{1}{2}$ W. (*N. by W.*), distant 39 miles; being the last and most easterly Port in the *Sardinian Duchy of Genoa*.

Cape Magrezo, which may be considered the S. eastern point of the *Gulf*, is high and bluff, and the *Island Palmaria* is much higher than any of the other islands, being nearly $\frac{1}{2}$ mile long; and although there are from 20 to 14 fathoms in the channel between *Palmaria* and *Tino*, yet it is seldom used, the eastern channel being so much wider, easier to be taken, and without any danger whatever. When you find yourself to the northward of *La Scola*, you will open the entrance of *Port Venere*, and at the same time see the *Citadel*, or *Fort St. Mary*, standing on a rocky point on the western shore. From this point to the bottom of the bay, where the town is situated, the distance is about 5 miles; and within this extent are several coves or creeks, the three southernmost being capable of receiving ships of any size, where they may anchor, and moor with safety, and lie sheltered from all winds. Of these, that between the *Citadel* and the *Lazaretto Point* has from 6 to 3 fathoms water within it. The next creek is between the *Lazaretto* and the point to the northward, on which is an old square castle: although it is much deeper and wider than the one just described, none but vessels under quarantine are allowed to enter: ships of war generally lie off it. This cove is about one-third of a mile wide, and two-thirds of a mile deep, with from 3 to 7 fathoms in it. The northernmost cove is not so good as the quarantine creek: it is wide, not so deep, but more convenient to enter and depart from; for you cannot sail into or out of the former without a leading wind, but you can do so with this: here the best anchorage is towards the southern shore, having 5 or 6 fathoms water. The other creeks in this *Gulf* are only fit for small craft.

The winds from the South to the E. S. E. blow directly into the *Gulf*, and with great violence, from between the mountains which surround it; it is therefore requisite you should be guarded against them. There is a shoal at the bottom of the *Gulf*, which stretches out to the distance of a quarter of a mile from the shore, which only boats can approach: it lies off the S. E. end of the town.

All along the eastern side of the *Gulf* there are sandy beaches, with good landing; but it is only in one cove you will find any shelter: this lies about E. N. E. $\frac{1}{2}$ E. (*East*) from the *Citadel*.

In the middle of the entrance to the *Gulf*, between *Palmaria Island* and *Cape Magrezo*, is a shoal; but there are from 9 to 12 fathoms over it, and no sort of danger. On the outside of this bank the water deepens gradually to 15 and 16 fathoms, and there are no rocks within, except off *Lazaretto Point*, where some sunken ones run off about 80 yards; vessels, therefore, ought not to approach nearer to that point than 6 fathoms. The tides are very irregular, and seldom rise more than 3 feet.

The current near the coast is very little; but 6 or 7 leagues off it sets to the W. N. W. and E. S. E. During the winter N. W. winds are prevalent; but in summer there is a succession of land and sea-breezes. Water may be had from the northern-

most *creek* in great plenty, but wood is rather a scarce article; nevertheless there are quantities of broom-stuff on the eastern shores of the *Gulf*.

The country round is not well cultivated, and but thinly peopled; but provisions are to be had in abundance. This being a port where all vessels bound to or from *Genoa* perform quarantine, there are generally merchant and trading vessels here; but fishing boats and feluccas with passengers are the only vessels which belong to this port, for it is, at present, a place of but little commerce.

SECTION VI.

THE ISLANDS OF CORSICA AND SARDINIA.

The Variation is One Point and a Half West.

CORSICA.

This *Island*, after having been alternately conquered by the Genoese, the English, and the French, is now united to, and forms a department of France. Its length from north to south is about 100 miles, and its greatest breadth, which is at the middle of the *Island*, nearly 43 miles. The interior is covered with mountains, which rise to a great height, and their summits are capped with snow during most part of the year; of these the two principal are *Monte Rotondo* and *Monte de Oro*; the former is 9900 feet high, and the latter 8720 feet. It is watered by numerous streams and rivulets, well stored with fish; and the shores abound with the tunny, the sturgeon, and numerous other of the finny tribe, besides oysters, &c. There are numerous horses, mules, asses, and quadrupeds; these are comparatively of small and slender form, but of extraordinary speed and spirit. Oxen are large, but generally lean, and the cows give little milk, from the want of proper pasturage; the inhabitants therefore make little butter; but goats and sheep are in abundance. Fruits are in great plenty; oranges, lemons, figs, olives, almonds, and chestnuts arrive at a high state of perfection. Vines grow in almost every part of the island, and there are mulberry, laurel, and myrtle trees: the inhabitants also cultivate wheat, barley, rye, and millet, honey, and wax, the last article being esteemed excellent. The mountains produce iron, lead, copper, and some small quantities of silver: there are also mines of alum and saltpetre. The silk raised here is usually exported to *Genoa*, for the purpose of its being manufactured into their velvets and damasks; a part also is sent to the manufactories at Lyons. The forests are particularly valuable, and the chief wealth of the island consists in its timber, its chestnuts, and its oil. Yet, with all these natural advantages, the natives are inactive, producing little more corn than equals their own consumption, engage in no manufactories, and encourage little or no commerce; so that the revenue drawn from it hardly balances the expences of its administration. The population is estimated at 200,000.

CAPE CORSO, the northern point of the *Island of Corsica*, lies in latitude $43^{\circ} 0' 35''$ N., and in longitude $9^{\circ} 22' 55''$ E. This headland is about 5 miles broad, and of moderate height near the water's edge, but rises up to a great elevation in the interior. Off its extremity is a little *Island* called *Giraglia*, with a watch-tower upon it: there is a passage between it and the *Cape*, having a depth of 7, 8, and 9 fathoms; but this should never be attempted, unless with a leading wind.

Giraglia Island bears from the *Lighthouse of Genoa* S. by E. $\frac{1}{2}$ E. (S. $\frac{1}{2}$ W.), distant 85 miles; from *Palmaria Island*, in the *Gulf of Spezia*, S. S. W. $\frac{1}{4}$ S. (S. W. $\frac{1}{4}$ S.), 65 miles; and from the *Mole of Leghorn* S. W. $\frac{1}{2}$ W. (W. S. W.), 51 miles.

S. W. $\frac{1}{4}$ W. (W. S. W.), about $2\frac{1}{2}$ miles from the *Island Giraglia*, is *Cape Bianco*, the N. W. point of *Corsica*, from which the coast runs S. $\frac{1}{4}$ W. (S. S. W.) for 11 miles, and then bends in somewhat easterly to *San Fiorenzo*; before you come to which, on the edge of the coast, you will see the *Tower of Farinale*. All along the shore from *Cape Bianco* to *St. Fiorenzo* there are watch-towers.

St. FIORENZO. The *Gulf of St. Fiorenzo* is broad and deep, having, as before observed, several *watch-towers* on the eastern coast, and one on the western side, on *Cape Martello*. Abreast of this *tower* is anchorage at 3 cables' length from land, in 12 and 13 fathoms; or you may come nearer, and anchor in 8 or 9 fathoms, mooring on shore. In approaching the western shore, come not too near *Cape Martello*, on account of some *rocks* which lie off it. Southward of *Martello*, about two miles, is *Porto Forno*; abreast of which, at the distance of nearly one mile, is good anchorage for all ships, with from 12 to 14 fathoms water, or with 9 and 10 fathoms, within 3 or 4 cables' length of the shore, oozy ground; you will then have the following bearings:—the *Town of St. Fiorenzo* S. E. by S. (*S. S. E. $\frac{1}{2}$ E.*); *Porto Forno* W. N. W. (*N. W. $\frac{1}{2}$ W.*); and *Martello Tower* N. N. W. (*N. $\frac{1}{2}$ W.*). There are some few *rocks* near the shore, which you must be careful to avoid. Small vessels may also anchor before the *Town of St. Fiorenzo*, but must beware of a *rocky ledge* partly above water, at about 500 yards from the coast. There is also another *rock* at the north end of the town, upon which the sea often breaks; you may pass between the *ledge* and it, having 4, 5, and 6 fathoms. Both in entering and sailing out of this *Gulf*, it is advisable to take the mid-channel, or rather nearer the western than the eastern shore; for when you are without *Cape Martello*, if the S. W. or S. S. W. winds have prevailed, you most commonly meet with high seas, which will drive you towards the east coast, where the water is too deep for anchorage: whereas, on the west side, when past *Martello Tower*, you can anchor any where, in from 4 to 35 fathoms. When you anchor at the southern end of the *Gulf*, you may get your water at a spring in a *building* near some ruins. The *Town of St. Fiorenzo* is in latitude $42^{\circ} 41' 3''$ N., and longitude $9^{\circ} 17' 42''$ E. It is well-fortified, and has a population of from 1500 to 2000, but the situation is not healthful, being surrounded by marshy land.

Leaving the *Gulf of St. Fiorenzo*, and passing outside of *Cape Martello*, a W. by N. (*W. N. W. $\frac{1}{2}$ N.*) course, for about 4 miles, will carry you clear of *Point Renella*, before which is a *rock* above water, lying close in to the shore: having cleared this *rock*, steer W. S. W. $\frac{1}{2}$ S. (*W. by S.*) for 6 leagues, and you will reach *Cape del Spano*, the N. eastern point of the *Bay of Calvi*. In your passage you will pass the *River Ostriconi*, which is about 9 miles from the western point of the *Gulf of St. Fiorenzo*, and the *Island Rousse*, 4 miles further; $6\frac{1}{2}$ miles from which is *Cape del Spano*: near the above *Island* is a *rock* above water. To the eastward of the *island* small vessels may anchor with off-shore winds. About 2 miles from the shore, and almost opposite to the *Fortified Village of Algajola*, is a *shoal* with 4 fathoms water over it: this, if necessary, may readily be avoided, either by sailing within that distance and the main, or keeping further off, and going on the outside of it.

THE GULF OF CALVI is formed on the eastern side by the *Cape del Spano*, and on the west by *Cape Rivellata*, upon which stands a *watch-tower*: the points of the entrance lie E. N. E. $\frac{1}{2}$ E. and W. S. W. $\frac{1}{2}$ W. (*E. $\frac{1}{4}$ S. and W. $\frac{1}{4}$ N.*) from each other, and the town stands on a rocky peninsula to the southward. Ships do not anchor on the east side, between the small *Cape* at the entrance, and the *bridge* on the largest of the two rivers which fall into the *Bay*, because the bottom is rocky; but from the *bridge* to the town the anchorage is good. When you intend to remain here, you should anchor between the town and *St. Francis Chapel*, in 4, 6, and 8 fathoms. Good water may always be had at the *bridge river*. To anchor in this road, the *rocky point* which lies outermost from the fort, should be brought to bear N. E. $\frac{1}{2}$ E. or E. N. E. $\frac{1}{2}$ N. (*N. E. by N. or N. E.*), at 3 cables' length, and *Cape del Spano* N. E. $\frac{1}{4}$ E. (*E. N. E. $\frac{1}{4}$ E.*), distant $2\frac{1}{2}$ miles; you will then be in 8 fathoms water, sand and weeds, $2\frac{1}{2}$ cables' length from the shore. You will carry the cable under the fort to some large rocks lying to the northward, and back your great anchor to the south, or you will be apt to drive. Four or five large ships only can anchor conveniently in the road, with a cable on shore, or fastened to some iron rings in the wall of a tower above the fort.

Calvi is easily known. In coming from the westward, you will see *Cape Rivellata*, and the *island* off its point, between which is only passage for a boat. You may sail near this *island*; and having doubled the *Cape*, will see the *Town of Calvi* to the southward. Between the *Cape* and *Calvi* is *Rivellata Bay*, in which is anchorage in 8 or 9 fathoms, but exposed to north winds. All the coast from *Rousse Island* to *Calvi* is high; but *Cape del Spano* is a long low point, with several *rocks* about it, having a round *watch-tower* upon it, and above that a square fortress. To this point, as well as to *Point Rivellata*, you should give a berth in passing.

The *Town of Calvi* is picturesquely situated, and its citadel is flanked with five

bastions, being generally considered the strongest in the *Island*; and has a population of 1500. It lies in latitude $42^{\circ} 34' 7''$ N., and longitude $8^{\circ} 45' 16''$ E.

From *Cape Rivellata* S. W. by S. (*S. W. $\frac{3}{4}$ W.*), distant 14 miles, is *Cape Gargalo*, and between them are the *Towers of Mandarella, Truccia, and Galleria*: near the latter is *Porto Galleria*, where small vessels frequently anchor during north-easterly winds. The point to the northward of the anchorage has a small *watch-tower* upon it. Several detached *rocks* lie off this part, which you must take care to avoid.

Cape Gargalo is a large point, ragged at the top, and has a small *island* near it, with a *tower* upon it. This *island* is about 2 miles in circumference, very high, and distant 40 yards from the shore: there is a *channel* between them for galleys. Off *Cape Gargalo* are two detached *rocks*. From *Cape Gargalo*, $2\frac{1}{2}$ miles S. by E. (*S. $\frac{3}{4}$ W.*), is *Cape Sandola*. The coast here bends inward, forming the *Port of Giralata*; to the westward of which stands a *tower*: with land-winds, but only in cases of necessity, you may anchor before it.

GULF OF PORTO. Point *Ozani* is the southern Point of *Giralata Bay*. Directly South (*S. S. W. $\frac{1}{2}$ S.*) from *Cape Sandola*, distant 2 leagues, is *Cape Turghia*, having some *rocky islets* about it: between these points is the *Gulf of Porto*, where you may anchor with land-winds. All the land from *Gargalo* to *Cape Turghia* is mountainous. The *Town* stands at the S. eastern part of the *Gulf*; but, there being little commerce carried on, it is imperfectly known.

In a direction of S. $\frac{1}{2}$ W. (*S. S. W.*) lie the *Points of d'Orsino* and *Cape d'Omigno*. The former of these is distant from *Turghia* $3\frac{1}{2}$ miles, and may be known by its *tower*, which stands upon an eminence: this point is surrounded by *rocks* both above and under water. One mile and a half from this Point is *Cape d'Omigno*; between them is a deep *cove*: on this point also stands a *tower*. S. E. $\frac{1}{2}$ E. (*E. S. E.*) from *Cape d'Omigno* is *Point Carghese*, having a *watch-tower* upon its summit. Sailing from hence, about 5 miles E. S. E. (*S. E. $\frac{1}{2}$ E.*), you will open the *Harbour of Sagona*, where the anchorage is good: steer toward the *white tower*, which you pass to the starboard of, and sailing along the larboard side, at the distance of a musket-shot, you will meet with a small *rock* under water; this lies at the entrance: having passed the *tower*, you anchor in 9, 10, or 12 fathoms, carrying a cable on shore. Small vessels run in further, riding in 4, 5, or 6 fathoms. This place is only open to the winds from the W. S. W. quarter. Between *Sagona* and *Point Carghese* are some small *coves*; and about a mile from the shore, and 2 miles from the Point, is the *Botta Greca*, a large *rock*.

GULF OF SAGONA. From *Point Carghese* to *Cape Fieno*, which is the southern point of the *Gulf of Sagona*, the course is S. a little easterly (*S. by E. $\frac{1}{4}$ E.*), and the distance 10 miles, the *Gulf* bending in eastward about 6 miles. Between *Sagona* and *Cape Fieno* are several *towers* and some *coves*: of these latter the principal ones are *Capigliola, Orsina, Palmentogia, and Provenzule*, all suitable for small vessels. Here also the *Liamone*, one of the chief rivers of the island, discharges itself into the sea.

Cape Fieno is high, and has a *rocky island* to its southward, with several sunken *rocks* about it, and must not be approached too near: between it and the *Cape* is a small *cove*, and to the southward are two other *coves*.

AJACCIO. From *Cape Fieno* to *Cape Sanguinaire* the course is S. by E. (*S. $\frac{1}{4}$ W.*), the distance being 5 miles; this is the northern point of the *Gulf of Ajaccio*. This is considered to be the finest bay in *Corsica*; it is bounded by *Cape Sanguinaire* on the north, and by *Cape Muro* on the south, these two points bearing from each other S. by E. $\frac{1}{4}$ E. and N. by W. $\frac{1}{4}$ W. (*South and North*), distant 10 miles. In coming from the northward, *Sanguinaire Islands* are very remarkable, the outermost, or largest, having a round *tower* on its highest part, and at the S. W. end an old square *tower*; these will be seen first, and appear like a sail: to the eastward are two barren *rocks*, called the *Brothers*, and another *island*, called *Little Sanguinaire*. Upon *Cape Sanguinaire* stands a round *watch-tower*; and between the *Cape* and *Little Sanguinaire* is a *channel* for small vessels. The distance from the *Cape* to the *Island* is 460 yards; from the *Island* to mid-channel are from 16 to 18 feet water; and from mid-channel to the *Cape* 5, $5\frac{1}{2}$, and 6 fathoms; it then shoals gradually, and you will have 3 fathoms within 20 yards of the outer *rock* of the *Cape*: therefore, if you take this passage, keep nearer to the *Cape* than to the *Island*. The bottom is composed of large stones, and unsafe to anchor on; but to the eastward of the *Cape* is

Portsea Bay, where there is good riding with N. W. and N. E. winds, in 10 and 11 fathoms, fine sand and ouze, which holds well.

Between *Little* and *Great Sanguinaire* is a reef of rocks, which effectually blocks up that passage: it is therefore most advisable to sail into the Gulf, leaving *Great Sanguinaire* on your larboard side, and giving it a good berth, there being a *sunken rock* off it, upon which the sea breaks in bad weather; and from the S. W. point stretches a *bank*: when the *two towers* are in one, bearing N. E. $\frac{1}{2}$ E. (*E. N. E.*), distant $1\frac{1}{2}$ mile, you will be upon it. In coming round the island from the northward, you will have 13 and 14 fathoms at half a mile's distance: steer S. E. $\frac{1}{2}$ S. (*S. S. E.*) towards *Cape Muro* until you open the *Church Steeple of Ajaccio*, outside of *Madona Point*; you will then have 30 and 40 fathoms, and avoid the *L'Aigle Rock*, on which His Majesty's Ship of that name struck. This dangerous rock is in length 9 or 10 yards from N. W. to S. E., and 5 or 6 yards broad: its shoalest part is a square of 3 or 4 yards, on which are $12\frac{1}{2}$ feet water, and on the N. W. end 16 and 17 feet; it is white, steep on all sides, and in clear weather may be seen a cable's length off: on the S. W. are $9\frac{1}{2}$ fathoms close-to, and on the S. E. (where *L'Aigle* struck) it overhangs its base: your lead-line touching it, you will find 10 fathoms water. Should you sail in by your lead, come not nearer than 20 fathoms: a quarter of a mile from it are 60 or 70 fathoms; but between the rock and the island are only 10 and 9 fathoms, fine sand.

When you open the *Steeple of Madona Point*, steer N. E. by E. (*E. by N. $\frac{1}{2}$ N.*); the *peaked mountain* will then be before you: give the north shore a berth of three-quarters of a mile, to avoid a rock lying off the *Boot*, which is round, and 20 feet above water. About 200 yards S. S. W. $\frac{1}{4}$ W. (*S. W.*) from it is a rock, with $1\frac{1}{2}$ foot upon it; and 800 yards E. $\frac{1}{2}$ S. (*E. S. E.*) is another, with 5 feet, outside of which, about 200 yards, are 10 fathoms, sandy ground; from the *Boot* to the *Shoe Rock* the course and distance are E. N. E. $\frac{1}{4}$ E. (*E. S. S.*) $\frac{1}{4}$ 10ths of a mile. *Dry* or *Shoe Rock* lies off *Madona Point*, and appears somewhat like a grampus out of water: the thwart-mark for it is the *Church of Madona* on the point, and the *little house* at the side above it in one, bearing N. by W. $\frac{1}{2}$ W. nearly (*N. 2° W.*), and distant from the point a quarter of a mile; between it and the point are 4 and 5 fathoms, rocky ground: 200 yards from this rock are 10 and 11 fathoms, and 50 fathoms at a quarter of a mile off. From the *Dry* or *Shoe Rock* the course to the *White Rock* is N. E. $\frac{1}{4}$ E. (*E. 25° N.*), distant 1 mile: this rock bears from the *flagstaff* of the *Citadel* S. by E. $\frac{1}{4}$ E. nearly (*S. 4° W.*), and is distant from the *south bastion* one-sixth of a mile; there are 6 and 7 feet water upon it, and it appears white; 30 yards S. by E. $\frac{1}{4}$ E. and E. S. E. $\frac{1}{4}$ S. (*South and S. E.*) of it are 10 fathoms, and between it and the *Citadel point* 4 fathoms: the thwart-marks are, the square old tower on the hill above the town appearing over the gable end of a large house by the *west bastion*, or the *entry-box* on the said *bastion* on with the above tower, bearing N. W. $\frac{1}{4}$ N. (*N. 26° W.*). Another mark is the round tower on *Great Sanguinaire* on with the *Boot*, bearing S. W. $\frac{1}{4}$ W. (*W. 19° S.*); therefore, by keeping the tower a sail's breadth open of the *Boot Rock*, you will clear the *White Rock*: this rock is very dangerous, especially in the night-time, when these marks cannot be seen. Having thus cleared the *White Rock*, steer on until the *suburbs* are open of the *east bastion*; you may then sail into the harbour north, and anchor in the middle, or nearer to the west side, in from 22 to 12 fathoms, clay and mud: the point of the *Citadel* is somewhat foul a cable's length off. The cove before the town is rocky, and consequently not safe to anchor in; and from its north side to the ledge it is shoal; a bank stretching along parallel to the *Citadel*: between the ledge and the head of the harbour are 5, 6, and 7 fathoms. This is a good place for two or three ships. Water may be had at a brook, at the head of the harbour, a cable's length from which is a rock nearly dry; but from the rock to the east part of the harbour, the beach is bold-to, with 5 fathoms close to the shore: on the S. E. side is a ragged point, which is foul.

Black Rock, another dry ledge, bearing from the bastion E. N. E. $\frac{1}{2}$ N. (*E. by N.*), distant 1 mile, is, from the point to its outer rock, one-third of a mile in length, and forms behind it a kind of Bay, where two or three ships may ride in 11 and 12 fathoms. Between the point and rocks there is no passage but for boats: sail therefore to the westward of the rocks, the outermost of which is in a line with the *White Rock*, *Boot*, and *Sanguinaire Tower*; keep the tower open a sail's breadth of the *Boot*, and it will carry you south of all the rocks. Off the S. W. dry rock is a shoal to the southward, distant 60 yards; but the S. E. dry round rock is bold and steep-to, having 20 fathoms within 50 yards of it: from this rock to the bottom

of the Bay is half a mile. Bring *Cape Muro* on with the round rock, bearing W. S. W. $\frac{1}{2}$ S. (*S. W. by S.*) one-third from the ledge, and two-thirds from the beach, and you may anchor in 11, 12, or 13 fathoms, mud and ouze. At the bottom of this Bay is a river, called *Capatelli*, and near the round tower is another: at these you may obtain water.

Ajaccio (pronounced *Ajatchio*) is the capital and chief town in the *Island of Corsica*. It is well-built, walled in, and protected by a *citadel*. There is a good strong mole; but the entrance to it is rendered somewhat dangerous by the rocks above mentioned. The number of its inhabitants has of late years very considerably increased, and the City much embellished and improved. It is principally distinguished as the birth-place of Napoleon Buonaparte. The *citadel* is in latitude $41^{\circ} 55' 1''$ N., and longitude $8^{\circ} 44' 4''$ E.

When sailing into this harbour in the night, it is advisable to come no nearer to the shore than 25 fathoms; for to all the rocks here described, there are 10 fathoms close, 20 fathoms within a cable's length, and 60 and 70 half a mile to the southward: you may anchor any where in 20 or 25 fathoms, sandy ground. Come no nearer to *Cape Muro*, *Cape Castaigne*, or *Cape Jolate*, than one quarter of a mile: these *Capes* lie in nearly the same direction, bearing from *Cape Muro* N. E. $\frac{1}{4}$ N. (*N. E. $\frac{1}{4}$ E.*). From *Muro* to *Castaigne* the distance is $2\frac{1}{2}$ miles, and to *Jolate* $4\frac{1}{2}$ miles. Between *Castaigne* and *Jolate* is a large Bay, the south part of which is called *New Harbour*, and formed by *Thorn Island* and *White Bridge Ledge*, the two outer rocks of which are above water, and in form and height like two hayricks. From *Cape Castaigne* to the outer rocks of *Thorn Island* and the *Hayricks*, the course is N. E. $\frac{1}{4}$ E. (*E. N. E.*), distance $1\frac{1}{2}$ mile; in rounding which, give it a berth of 3 cables' length, for to the N. E. is a sunken rock with only 3 feet water upon it. The *Hayricks* are bold-to: when you have passed them, steer for the south cove, and anchor a little eastward of the ruined house, having the inner round dry rocks on with the outer tower of *Great Sanguinaire* in 7 and 8 fathoms, good clay ground. From the *Point* to the *Hayricks* is a continued ledge, having 6 and 8 feet water, and several rocks above water, which serve to shelter you from the seaward, making this a tolerable harbour for two or three ships: from the anchorage to the ragged *Point of Jolate* are 20 and 25 fathoms, fine sandy ground. W. S. W. $\frac{1}{2}$ W. (*West*) of *Cape Jolate*, distant half a mile, is a rocky bank, with 4 and 5 fathoms water upon it. Around the *Cape* are many large rocks above water, and bold-to; but in working in or out, this bank should be avoided.

Jolate Bay lies to the eastward of the *Cape*; between it and *Black Point* ships may, if necessitated, anchor in 16 and 18 fathoms, but at the bottom are some rocky places. In the middle of the *Gulf of Ajaccio* there is no ground at 120 fathoms; but on each side are regular but deep soundings from 100 to 10 fathoms, in which stream all the rocks lie. On *Cape Jolate*, *Castaigne*, and *Muro* are watch-towers; and *Black Point* has a reef running from it more than a quarter of a mile N. W. You may anchor any where in *Capitalo Bay* with from 20 to 25 fathoms, sand and ouze, at a quarter of a mile from the shore; but with sea-winds you will be safer behind the ledge, even though you water at *Capitalo*.

From *Cape Muro*, E. S. E. $\frac{1}{4}$ S. (*S. E. $\frac{1}{4}$ S.*), about 2 miles, is *Cape Negret*, having between a small Cove, named *Cala d'Orzo*, where one or two small vessels may get shelter from the N. W., North, N. E., East, and S. E. winds: on the larboard side are some rocks, and at the bottom of the Cove a little river, with a sandy beach, where you may land when the winds do not blow from the offing. Three miles and a half to the eastward is another point, having a watch-tower upon it; and further on is *Port Pollo*, the point of which runs far out to sea, having also a watch-tower upon, and some rocks around it: the anchorage is to the eastward of this point, and good only in summer. Water may be had here; but you lie much exposed to the S. S. W. winds.

GULF OF VALINCO. From *Cape Muro* to *Cape Senetoso*, the course is E. S. E. (*S. E. $\frac{1}{4}$ E.*), and the distance 11 miles; between these points the land bends in to the eastward, and forms the *Gulf of Valinco*. There are several anchorages in this *Gulf*, of the same description as *Ajaccio*, fit only for summer, where you will have 15, 18, and 20 fathoms water, generally with a bottom of brown sand, and clean every where, such as *Zille*, where ships may draw near shore, and anchor in 8 fathoms abreast of the tower. To the southward of *Zille* is a fine sandy beach called *Tavaria*: here *Valinco River* falls into the sea. A little to the S. S. W. $\frac{1}{2}$ W. (*S. W.*) is *Por-*

ticciola Point, forming a kind of *Bay*, called *Porto Giolo*: on the *Point* stands a *watch-tower*. To the southward is *Campo Moro*, which may be considered the principal of these *Bays* or *Harbours*.

Port Campo Moro may easily be known by a huge round *Cape* at the southern entrance, upon which may be seen, at a great distance, a fortified *tower*. This harbour is good: you may moor with an anchor to the east, and a hawser on shore under the tower to the west. At the entrance are four *rocks*, between which, in case of necessity, you may pass, having 8 fathoms water: you may also pass between the shore and the *rocks* of *Senetozo*, to the south-west of the harbour; but when you are sailing to the anchorage, it is recommended to leave the *rocks* on your starboard side; and as soon as you have doubled the former, you will discover a great *cove* and *vineyard*: steer on, leaving the *vineyard* on your larboard side, and anchor 2 or 3 cables' length from shore, in 18, 20, and 25 fathoms. The *tower* then bears N. W. $\frac{1}{2}$ N. (N. N. W.); the *Capes* of *Campo Moro* and *Muro* are in one, bearing N. W. $\frac{1}{2}$ N. (N. N. W.), and you will not perceive the sea in the offing; besides, you will have the shelter of the *rocks* above mentioned. Small vessels anchor further in, and have from 10 to 16 fathoms water: they are still better sheltered, and can moor with a hawser on shore, as before mentioned. Good water may be had at a spring about a mile inland.

Off *Cape Senetozo* are some *rocks*, called *Ecchica*, or *Chimouri*, between which and the *Cape* is a passage with 15 fathoms water: the *Cape* itself is high, with a point projecting into the sea, and a *tower* upon it. S. $\frac{1}{2}$ E. (S. by W.), 2 miles from *Point Senetozo*, is *Point Tissano*, or *Tizzano*, the coast between making *Tiscara Cove*, where the *River Mortari* falls into the sea. On the larboard side of the entrance is *Tissano Tower*, and the land all round is mountainous.

THE MONKS. Near *Point Tissano* is a little *island*, called *La Botta*; and to the southward of it lie several *rocks* both above and under water, called the *Monks*. These *rocks* lie about $\frac{1}{4}$ miles from shore, extending N. E. by E. and S. W. by W., in a broken chain of not more than 2 cables' length wide, full 2 miles. The outer rock lies three-quarters of a mile from the body of the westernmost group, is about 12 or 14 feet diameter, and has not more than 5 feet water on it; there are 10 and 11 fathoms all around it, at a cable's length distance. Several other *sunken rocks* lie between that and the main body, but they are easily discovered by the sea breaking on them: there are from 4 to 6 fathoms close to the southernmost breaker. The easternmost group is about 30 feet above the water, and the westernmost about 40 feet. When as near as a boat could approach the *rocks*, *Cape Blanco* and *Cape Feno* were in a line; *Cape Longo Sardo*, in *Sardinia*, bore S. E. $\frac{1}{2}$ E. (S. E. by S.); and the north end of *Azinara* S. W. by W. (W. S. W. $\frac{1}{2}$ W.). They may be avoided by keeping *Cape Blanco* well open of *Cape Feno*. The passage between *Corsica* and these *rocks* is very good, there being 16 fathoms water close to the latter. From *Tissano*, or *Tizzano Point* to *Point Guadiola* the course is about S. E. $\frac{1}{2}$ S. (S. S. E.), distance 4 miles; and nearly $\frac{1}{4}$ miles further, in almost the same direction, is *Roccapina Point*, rising to a great height, and having a *tower* upon it. Between these are two *coves*, separated by *Point Barbarino*.

Two miles east of *Barbarino* is a *headland*, called *Three Fountains Point*, and further on *Olmetto Point* and *Cove*; the former is very high, having several *rocks* about, and a *tower* upon it: behind it is a *sandy beach*, on which you may land when the wind does not blow from the offing. *Olmetto Cove* must not be entered without being well acquainted with it. Further on is *Briccia Rocks*, running one-third of a mile into the sea; behind them is a *cove* of the same name, capable of containing a few barks, but whose entrance is difficult.

FIGUARI. To the S. S. W. $\frac{1}{2}$ W. (S. W.) of *Briccia Rocks*, a mile and a half, is *Figuari Point*, between which and *Point Ventilegna* is the *Port of Figuari*, being about a mile broad, and a mile in depth, growing narrower as it runs up to land. Off *Point Ventilegna* are some *rocks* above water: there are also several *islands* and *rocks* along the coast, but they are all near shore, leaving a clear passage in the middle, with 10, 11, and 12 fathoms water: ships anchor more inward in 6 or 7 fathoms, the depth gradually decreasing to the bottom of the port, where several small *islands* extend to the mouth of the little *River Canalle*. The port lies N. E. and S. W.; it is safe, keeping mid-channel, and surrounded by high mountains: among these one is higher than the rest, called *Figuari Mount*, and will serve as a mark for the port.

VENTILEGNA. From *Point Ventilegna* to *Cape Feno* the course is S. by E. (S. $\frac{1}{2}$ W.), about 3 miles: the coast between forms the *Gulf of Ventilegna*. At its

further end is a fine *sandy beach*, very convenient for landing: there are several *islands* and *rocks* on its starboard side. You are not safe here with winds from the West, S. W., or South; and the sea runs high with all winds from the offing.

Cape Feno is foul; and from thence towards *Bonifacio* are many *rocks*, both above and under water: the course is E. by S. (E. S. E. $\frac{1}{4}$ S.), about $2\frac{1}{4}$ miles; the land is high, and the mountains come near the shore. Between are the *Coves of Paragnana* and *Fachola*, where galleys and even ships may anchor. The former is open to the W. S. W. and South winds, which are dangerous; but at the latter you lie safe, sheltered by the *islands* which are before it: its entrance is narrow, and difficult to discover.

BONIFACIO. The *Port of Bonifacio* may be known by the *white cliffs*, *houses*, and *fortifications* standing near the cliffs: it is a *creek*, above a mile long, and not a quarter broad. In sailing in, the *fortifications* and *town* will be on the starboard, and you will have from 13 to 7 fathoms all the way up; the entrance is 80 or 90 yards broad. As you sail up, the cliffs on each side are higher than the masts of the ship; but without a fair wind, you must either tow or warp up, keeping the starboard shore on board till you are abreast of the second *cove* on the larboard side. It has a *sandbank* below it, with not more than 12 or 14 feet water upon it: in every other place the harbour is steep; and if the ship should ground any where, there is not the least danger, for you may anchor any where above this *bank* in 7 or $7\frac{1}{2}$ fathoms water. This harbour can contain 4 or 500 sail of ships, and might be made one of the finest places for heaving down in these parts; but its entrance being narrow, it can only be entered with a fair wind and good weather. The *Town of Bonifacio* is in latitude $41^{\circ} 23' 11''$ N., and longitude $9^{\circ} 9' 16''$ E. It is neatly built and fortified. The coral fishery is here carried on with great activity, and produces a considerable trade. The inhabitants are calculated to be about 3 or 4000, chiefly colonists from Genoa.

STRAIT OF BONIFACIO. The *Strait of Bonifacio* is bounded on its northern side by the *Coast of Corsica* and its adjacent *Islands*, the most considerable of which are the *Isles of Cavallo* and *Lavezzi*, both being surrounded by dangerous *rocks* and *shoals*; and on the *Sardinian* side by several *Islands*, called the *Madelaine* and *Barrettini*, and other *Islands*, which we shall notice in our description of *Sardinia*, to which they properly belong. The *Strait of Bonifacio* is safe for all kinds of vessels to navigate; there is no danger whatever if they keep in the middle of the *Strait*, until they get abreast of *Lavezzi Island*, where there is a little spot of shallow water, lying directly South (S. S. E. $\frac{1}{4}$ S.) from *Lavezzi*, distant one mile: there are 10 and 11 fathoms on each side. The sea here is often very high, and the waves dash along with a prodigious roaring, perhaps occasioned by the *rocks* adjacent to the *Islands*; for the eastern side is less wide than the western; that is, from *Cape Della Testa* to *Cape Feno*, the distance is about 8 miles; while, between *Razzoli* and *Lavezzi Islands* it is not more than $3\frac{1}{2}$ miles. It is advisable, in going through, to keep rather nearer to *Sardinia* than *Corsica*, and also nearer to *Razzoli Islands* than to the *Lavezzi*, the latter having some *rocks* under water off its southern part. *Cape Della Testa* will appear like an island, being very high, and having a *watch-tower* upon it.

From *Bonifacio* the coast runs southerly 2 miles to *Cape Blanco* or *Cabo Pertusato*; then easterly to *Point Sprono*, and thence N. N. E. $\frac{1}{4}$ E. (N. E.) to *Santa Manza Point*. Between *Point Sprono* and *Santa Manza* are several *islands*, *rocks*, and *shoals*; and though the least water is 3 fathoms, and near 5, 10, and 15 fathoms in most of the channels, yet you should not attempt to pass between them and the coast; but, steering direct through the *Strait*, pass on their south-eastern side, and, as before recommended, always nearer to *Razzoli* and the coast of *Sardinia*.

Points Sprono and *Chiantarella* are high: about 600 yards to the southward of the latter lies the *Chiantarella*, a danger, part under, and part above water, which you must be careful to avoid. To the north-eastward is *Cape Esperone*, and $4\frac{1}{2}$ miles further, *Santa Manza*; beyond which is *Cape Rondana*, forming the northern point of the *Gulf*.

THE GULF OF SANTA MANZA is about 4 miles deep, and $1\frac{1}{2}$ wide at its entrance, narrowing as you go in; and at its further end is a *rivulet* with good water. Towards the middle of this harbour the anchorage is good for all kinds of vessels; and further in small vessels may anchor in 5 or 6 fathoms, good ground, entirely sheltered; though East and N. E. winds often occasion a great swell. The town is situated at the bottom of the *Gulf*, in latitude $41^{\circ} 25' 0''$ N., and longitude $9^{\circ} 15' 11''$ E.

Cape Rondana, which is the northern point of the entrance to the *Gulf of Santa Manza*, is very high land; and to the northward is *Point Precilba*, a high land, also projecting into the sea: $1\frac{1}{2}$ mile further, is the *Torre di la Sponzaglio*; one mile more,

and you reach *St. Giulias Cove*, southward of which is *Porto Nuovo*: these are divided from each other by a *mountain*; two or three galleys may anchor here, and obtain good water from a *rivulet*. At the entrance to *St. Giulias Cove* you may ride in 10 fathoms water: within the *Cove* is a small low *island*, behind which you may anchor in 4 or 5 fathoms.

The coast now runs E. N. E. (*E. $\frac{1}{2}$ N.*), about 5 miles, towards *Cape della Chiapa*, a little to the southward of which are four small *islands*, named *Cervicales*: small vessels can pass between them and the shore, and anchor in 8, 10, and 20 fathoms: that nearest to *Cape Chiapa* is the largest, and called *Cibiciani*; the second, *La Minora*; the third, *Santa Suera*; and the fourth, *La Servi*. Off *Cibiciani*, about half a mile, is a *rock* above water, called the *Verdraro*, or *Small Bull*; and 2 miles S. S. W. $\frac{1}{2}$ W. (*S. W.*) from that lies another, called *Tauro*, or the *Great Bull*, to the eastward of which is a *white bank* with only 14 feet water, though between the *Bull* and this *bank* are, towards the former, 35 fathoms, and towards the latter 25 fathoms.

PORTO VECCHIO. *Cape della Chiapa* is the southern *headland*, and *Cape St. Cyprian* the northern boundary of *Porto Vecchio*; they lie N. and S. of each other, and are $1\frac{1}{2}$ mile asunder. On both sides the land is high, the mountains coming down even to the water's edge. There are some *islands* at the entrance, which form three distinct channels: the largest of these *islands* lies nearest to *Cape St. Cyprian*, and is called *Galera*, or *Pecorella Island*; it is nearly equidistant from both *Capes*, and has some *rocks* about it: always give it a berth, and the channel between it and *Cape St. Cyprian* will be found fit for all kinds of vessels. S. by W. (*S. W. by S.*) from *Pecorella Island* is a *rock*, called *Chiapino*; between these is the best passage into the *Port*, having 17, 13, and 11 fathoms water. The *Chiapino* has some *rocks* about it. S. westward, about 200 yards, is *Chiapa Cape*; between is another passage, called the *Little Channel*, in which are from 10 to 15 fathoms.

Porto Vecchio is about 5 miles deep, where vessels may lie in safety from the *islands* before mentioned, up to that which lies near the further end. Ships may anchor in the middle in 5 and 6 fathoms, grass and ouze; but as the land-winds are violent, you must ride with a spring upon your cable: the winds from the sea will do no hurt, and cause little swell, the waves being broke by the *rocks* and *islands* at the entrance. There are two watering places, one on the larboard, the other on the starboard side. The *town* and a *fort* are at the west end of the *cove*; but the former is nearly abandoned, and the latter in ruins: this is occasioned by the noxious qualities of its air, arising from the marshy grounds in the neighbourhood. In coming from the eastward, this *Port* may be easily known by a high *rocky mountain*, standing like a stately column near it. *Porto Vecchio* is in latitude $41^{\circ} 35' 29''$ N., and longitude $9^{\circ} 16' 36''$ E.

Off *Cape St. Cyprian* is a *rock*, partly covered with water; do not attempt going between it and the land, as several *sunken rocks* are scattered about: round this are the *Island* and *Tower of St. Cyprian*, behind which a few galleys may occasionally shelter. About 2 miles N. E. $\frac{1}{2}$ E. (*E. N. E.*) from the *Cape* is *Cape del Agua*, and at the like distance further lies the *Island of Corsi*: between these latter is a high *headland*, called *Cape Gilaiou*, forming a *Cove* with a sandy beach, where small craft may anchor: there is also a similar *Cove* to the northward, or between *Corsi* and *Sarraco*, having room for 8 or 10 vessels, but should only be used with good weather and land-winds. Off *Corsi Island*, a quarter of a mile N. $\frac{1}{2}$ E. (*N. N. E.*), is *L'Arescana sunken rock*, which you should be careful to avoid: to the northward is *Cape Fuela*, lofty, but within it is a good *cove* and a *landing place*. *Cape Fuela* has a *tower* upon it.

The coast now runs in a northerly direction from *Cape Fuela* to *Cape Solinzara*, a distance of about 10 miles, and from thence 7 or 8 miles further to *Fiumorbo River*. Abreast of this *River*, at the distance of a mile, is the *Marise*, a dangerous *shoal*, with 15 fathoms very near its edge; the land here is low, and turns N. E. by N. (*N. E. $\frac{1}{2}$ E.*) towards the *Tower of Aleria*, which is built on a *point* surrounded with *shoals*, and at the entrance to the *River Tavignano*: the mariner will be careful to give this part a good berth. From hence to *Point D'Arco* the shores are low, having some spots of beach, with several *towers* and *rivers*: but from *Cape Fuela* to *Point D'Arco*, being a space of above 50 miles, there is no shelter for a vessel of any kind. There is a small *fortress* here, at the entrance of the *River Golo*, and very near the southern part of the *Lagoon of Biguglia*.

From *Point D'Arco* the land appears green and low, running N. N. W. $\frac{1}{2}$ W. (*N. by W.*) $8\frac{1}{2}$ miles, to the entrance of *Biguglia Lake*; two miles northward of which is the *Port of Bastia*.

Two *sunken rocks* are said to lie off the eastern *Coast of Corsica*; the southern one is $9\frac{1}{2}$ miles nearly N. E. (*E. N. E. $\frac{1}{2}$ N.*) from the *Tower of Aleria*, and the northern one is near 12 miles from the same *tower*, bearing N. N. E. (*N. E. $\frac{1}{2}$ N.*): these are reported to be dangerous, and though they rest upon doubtful authorities, they should always be carefully steered clear of.

BASTIA is the capital of *Corsica*, built upon the slope of a mountain, in a circular form; but its streets are narrow, and ill-arranged. The citadel, which defends the town, is of considerable strength. The commerce consists of skins, wines, pulse, oil, and figs: in all these articles the surrounding country is very productive. Its latitude is $42^{\circ} 41' 36''$ N., and longitude $9^{\circ} 26' 45''$ E.

The *Port of Bastia* is small, and fit only for small vessels: there was formerly good anchorage, but now very little water. Its entrance is narrow and difficult, and you lie exposed to the land-winds, which from the N. W. sometimes blow with such violence, that barks are broken to pieces against the *Mole*, or against each other. The entrance is practicable only for one vessel at a time, taking care to keep the mid-channel; and as soon as you have anchored, carry a cable on shore to one of the *stone pillars*, erected for that purpose, on the *Mole*; you will then lie in 3 or 4 fathoms water, on a ground of white grass and ouze: the best berth is on the side where the galleys anchor. At the end of the *Mole* is a *watch-house*, where, in bad weather, a fire is lighted. On the larboard side of the port vessels are liable to winds from the offing, which, lying along the *Mole*, they will be sheltered from, and suffer only from the surge that comes in, though there is nothing to fear from that, if the cables are good: with contrary winds, you may anchor outside the *Mole* in 10 or 11 fathoms, having the northern part of the town to the west a cable's length. To the northward of this place, and at the end of the suburb, is a good and very convenient watering place.

From hence to *Figaroni*, or *Finocchiarola Islands*, the distance is about 17 miles, the coast rounding N. N. E. $\frac{1}{2}$ N. (*North*), nearly 7 miles to *Cape Sagro*, and then 10 miles N. by W. (*N. $\frac{1}{2}$ E.*) to *Figaroni*. All the coast is high, and the mountains come down close to the sea: it has but few inhabitants, and is exceedingly dangerous with East and S. E. winds. In this space are many *watch-towers*, and some few *rivulets*, but none of any importance. The *Figaroni Islands* are three in number, the eastern, or outermost, being the largest, and having a *tower* upon it. To the southward, and very near these *Islands*, is *Figaroni Road*, where you may anchor in 6, 7, and 8 fathoms, sheltered from North, N. W., and West winds. Between the outer and middle island is a *passage*, narrow, but safe, with 6 fathoms: there is also a channel between the others with the same depth, but not so clear; between the *inner island* and the *main* is only one fathom water. North from hence, $1\frac{1}{2}$ mile, is another anchorage, called *St. Mary's Road*, in which, at one-third of a mile from the shore, are 6, 7, and 8 fathoms, and for small craft, nearer to the shore, 4 and 5 fathoms; but take care of the *shoals* stretching along the shore, near which are only 9 feet: the watering place is at a well not far from shore. H. M. Ships the *Victory*, *Canopus*, *Triumph*, and *Renown* found anchorage hereabout in 30, 24, 34, and 30 fathoms water, having the *Village of Macinagio* distant 5 miles; the *Islands of Figaroni* bearing W. $\frac{1}{2}$ N. (*W. N. W.*): and it is said a fleet of any number of ships might anchor here, and be sheltered from all winds from the N. N. W. to the S. by W., on good holding ground. *Cape Corso* is the northern point of *Corsica*, and lies N. W. by N. (*N. N. W. $\frac{1}{2}$ N.*) about 3 miles from the *Figaroni Islands*; off which lies the *Island Giraglia*, with a *tower* upon it, as already described. The coast continues all along mountainous.

SARDINIA.

THE ISLAND OF SARDINIA is situated to the southward of *Corsica*, and reaches from latitude $41^{\circ} 16' 0''$ N., to latitude $38^{\circ} 52' 0''$ N., being in length 144 miles, and in breadth 66 miles. The geographical division of this *Island* is nearly in two equal parts. The northern division is called *Sassari*, or *Elogudoro*, and reaches on the western side to *Cape Mannu*, and on the eastern side to the *Gulf of Orosi*. The southern division is called *Cagliari*. The population is reckoned at 530,000. It is mountainous; the hills, entitled to the name of mountains, extend in the general direction of north to south, inclining somewhat nearer to the western coast; but towards the south the hills are of little elevation. There are various *rivers*, two of which are very considerable streams; these are the *Oristano* and *Flumendoso*, the former of which rises far inland, and discharges its waters into the *Gulf of Oristano*: the latter is on the eastern side of the *Island*, and runs into the Sea at about the latitude of $39^{\circ} 27''$ North.

The soil of *Sardinia* is generally fertile, but very indifferently cultivated: the vine, the olive, the mulberry, lemon, orange, fig, pomegranate, and palm trees are to be seen in most parts; and the interior of the country contains extensive forests of oak, chestnut, and cork trees, of which very little notice is taken, or advantage made. Grass and meadow lands are few; yet they have horses and plenty of horned cattle, together with sheep, hogs, and goats. Stags, wolves, foxes, and hares are numerous, and remain in their wild state. There are no manufactories carried on here, except some of coarse linens and woollens; and their exports consist only of raw materials, as corn, cattle, hides, fruit, and salt: vast quantities of the latter article are annually shipped at the *Gulf of Cagliari*.

CAPE DELLA TESTA, commonly called *Cape Longo Sardo*, the northernmost point of the *Island of Sardinia*, is in latitude $41^{\circ} 15' 0''$ N., and longitude $9^{\circ} 7' 0''$ E.: it is a huge high *Cape*, with a *chateau* or *tower* upon it, appearing a great way off like an *island*. This *Cape* lies S. by E. $\frac{1}{2}$ E. (*South*), distant 8 miles from the *Cape Feno* in *Corfica*. The *Port of Longo Sardo* is of little importance, being narrow, and running in S. by W. (*S. S. W. $\frac{1}{2}$ W.*) nearly half a mile. Off the western or starboard point are some *rocks* above water, but the larboard point is quite clear: enter between the *rocks* and the larboard shore, near midway, and you will have 12, 10, and 9 fathoms water, gradually decreasing until you are in 5 fathoms: you will then have good anchorage, placing your stern near the ruins of a *village* on the larboard side, and your head towards the entrance, with a good anchor without, and a hawser on shore. The further end of the *port* is very shallow, but good fresh water may be obtained there. On the starboard side, in a line with the anchorage, is a remarkable pointed *rock*.

SASSARA or **ASINARA**. Leaving *Cape Della Testa*, and stretching westward 13 leagues, you will reach the *Island of Asinara*, which is long and irregular. Within it, on the east side, is a great *Bay*, called the *Bay* or *Gulf of Sassari*. On the shores of this *Gulf* there are some places of minor consideration; of these the *Castle Sardo* and *Porto Torres* are the chief. There are several *rocks* along shore, and some small *rivulets*. At some distance inland is the *Town of Sassari*, which gives name to the *Gulf*, and is the capital of the northern province. It is a well-built town, surrounded by a wall, and stands upon an elevated plain, being estimated to contain a population of 30,000. The environs produce wine, oranges, lemons, and other fruits, together with silk.

Along the shores of this *Gulf* there are some anchorages, sheltered from the N. W. winds, in 8 and 10 fathoms water. Between the *Island of Asinara* and *Cape Falcone* are two passages, formed by *Piana* or *Vana Island*. On *Pelosa Island* stands a *watch-tower*. The northern, or *Little Passage*, has only 4 or 5 feet in it. There is a large *sandbank* stretching from *Point Lichette*, the southern point of *Asinara*; upon this island you will see a *castle* situated upon a hill; but between the *Island Piana* and *Cape Falcone* is a channel, having a *bank* in the middle, over which you may sail in 10 to 12 feet, gradually decreasing at each side of the entrance. Off *Cape Falcone* is a *watch-tower* built upon a *rock*, and round are several other *rocks*; give them a berth by steering nearer to the islands, and you will have 15 feet; but there are some points of sand running from this island, so that you must not come too near. South-eastward of the above-mentioned tower is a watering-place, and anchorage in 2 fathoms; but though galleys and tartans often take these channels, yet mariners unacquainted with them, should never use them, but sail to the northward of *Asinara Island*; having rounded which, the coast runs S. W. by S. (*S. W. $\frac{1}{2}$ W.*) to *Cape Falcone*, and from thence S. by W. (*S. $\frac{1}{2}$ W.*) to *Cape Negretto*, between which is a sort of *Bay*, where anchorage may be had in 7 fathoms water: from thence it stretches on in a similar direction to *Point Argentara*. This *Point* is distant from *Point Falcone* 15 miles. Directly South (*S. S. E. $\frac{1}{2}$ S.*) from *Cape Argentara*, distant 4 leagues, is the *Point of Cape Caccia*, which is the S. western *Point of Porto Conte*.

PORTO CONTE. *Cape Caccia* has a large *rock* to the westward, above water, close to the *Cape*, and a *watch-tower* on its top: a small *rock* is also visible to the westward. Further in stands *Tour de Garde*; and between, the *Cove of Caccia*, having 6, 7, and 8 fathoms. Inland is a *tower*, upon the summit of a hill; and opposite you, on the north shore of the *port*, stands a *tower*, with some trees to the east of it. From *Cape Caccia* to the eastern point of the *Bay*, the distance is $1\frac{1}{2}$ mile: there is a *watch-tower* upon this point also; and upon a point $1\frac{1}{2}$ mile to the northward of it, is another. In entering the *Port*, you will have 10, 9, and 8 fathoms, and gradual soundings as you approach northward. Gallies anchor to the eastward of the point

where stands the last-mentioned *watch-tower*, in from 4 to 2 fathoms, clear ground. You will see a *rivulet* to the eastward, where you may get fresh water. The land is generally high, especially a little way inland.

ALGHERO. Six and a half miles to the eastward of *Porto Conte* are the *Gulf* and *Port of Alghero*, where, between the *east point* of the entrance of the harbour, and the *Point* of the *Town of Alghero*, or *Alghero*, is anchorage in from 7 to 10 fathoms, east of an island which lies within the *Bay*: vessels may also anchor before *Alghero* in 10 fathoms, but they will be exposed to S. and S. W. winds. The shore now runs S. by E. $\frac{3}{4}$ E. (*South*) for 12 or 13 miles to *Cape Marargiu*, having two *watch-towers*, and several rocks above water close to the shore; you will then, on rounding this *Cape*, see the *Island*, *Town*, and *River of Bosa*; before which you may anchor in 8 or 7 fathoms: to the southward is another island, and several *watch-towers*, also a small river. Having passed to the southward of this, you will see the *Towers of Fogu d'Olio* and *St. Catherine*, before which you may anchor in a kind of roadstead, made by a point of land running to the westward; here are from 3 to 10 fathoms water, according as you recede from the shore. Inland you will perceive the high mountain of *Sane*, which, with *Mount Minerva*, near the *Cape Marargiu*, will point out the place of your anchorage.

South (S. by W. $\frac{3}{4}$ W.) from *Cape Marargiu*, 18 miles, is *Cape Mannu*, called by some the *Southern Point* of the *Gulf of Bosa*. To the northward of this *Point* is the little *Island Pelosa*, surrounded by sands and rocks, which altogether are of the extent of full one mile. About 4 miles S. W. $\frac{3}{4}$ W. (W. S. W.) from *Cape Mannu* is the *Island of Maldiventre*, between which and the shore is a passage, through which vessels may pass to the *Gulf of Oristano*: there are a few rocks above water on each side of the passage, and from 6 to 11 fathoms within it. S. by W. (S. S. W. $\frac{3}{4}$ W.) of *Maldiventre* is another small rocky island, distant about 6 miles, named *Coscio di Donna*, surrounded also by a reef. From this islet E. by S. (E. S. E. $\frac{3}{4}$ S.), distant 7 miles, is *Cape St. Marco*, which forms the N. western *Point* of the *Gulf of Oristano*: there is a sunken rock off its southern point.

ORISTANO OR ORISTAGNO. This is the largest and best *Bay* on the western side of the *Island of Sardinia*; but it is quite exposed to the westerly winds, and therefore not always to be recommended. Upon *Cape St. Marcos* stand the ruins of *Tarros*, and also a *watch-tower*; while from its point runs a rocky bank. The entrance to this *Bay* is 5 miles wide, and midway between them are 15 and 16 fathoms water; but do not come too near the northern point, on account of the rocky bank before mentioned. The anchorage to the larboard is abreast of *Giovanni Tower* on the inner point, in 5 or 6 fathoms, about a mile and a half from shore; or more northerly, abreast of a point, behind which stands a chapel, at about a mile from shore, in 13 or 14 feet: to the northward the shores are low and shallow, but to the southward of *Cape Frasca*, about one mile, you may anchor close to the shore, and have 4 fathoms water: there is anchorage further in, in *Lake Marcede*, for galleys. From *Marcede* the shore all the way to the northward is low and sandy. About $1\frac{1}{2}$ mile from *Fort Marcede* is a fishery, and, at the end of the opening, some salt-works; a league beyond which is the entrance to *Lake Sassu*, which communicates with the *River Uras*. The shore thence bends circularly to the northward; and about 3 miles beyond this is the mouth of the *River Tirsì*, which is also called the *Oristano River*. The land now turns to the north to the *Tower Grande*, whence it runs W. and S. W. to the *Cape St. Marco*: all this part has shallow water near it, the depth generally increasing gradually as you leave the land. There is, however, a patch of sand to the (E. S. E.) of the *Cape*, distant $3\frac{1}{2}$ miles, upon which are only $2\frac{1}{2}$ and 3 fathoms: between this and the land there are 4, 5, and 6 fathoms, and between the shoal and the *Cape* 10, 11, and 12 fathoms: *Oristano Town* in one with the entrance of the *River Tirsì*, will lead to the northward of it, and *St. Marcos Point* on with the opening of the *Sassu*, will carry you to the southward of it. A little to the southward of this mark the shoal bank runs out a considerable way from the land, with $2\frac{1}{2}$ and 3 fathoms. The *Town of Oristano* is not fortified, but stands in a pleasant, yet unhealthy situation, about 2 miles from the shore: it is the See of an Archbishop, and has a handsome Cathedral, Hospital, and Catholic School. It is in latitude $39^{\circ} 53' 55''$ N., and in longitude $8^{\circ} 33' 40''$ E.

South (S. S. W. $\frac{3}{4}$ S.) from *Cape Frasca*, distant 5 miles, is the *Tower of Fiumentargiu*; and 5 miles further, that of the *Agua di Corsari*, an inlet, having an island in front, which divides the channels. The coast continues to run S. S. westerly until

you see some *islands* stretching off to the westward; the land is all very high, and without any shelter from westerly gales.

S. by W. (*S. S. W. $\frac{1}{2}$ W.*), about 19 miles from *Cape Frasca*, is *Cape Pecora*, and 4 miles further is *Cape Rama*; 9 miles to the southward of *Rama* is *Cape Altano*; between them is the *Pan di Zuccari* and *Port Masuras*, having some rocky *islets* near the land; and to the southward of *Port Masuras* is the *Town of Paglia*, with a rock under water lying before it. The land here juts out to the S. westward, and forms the *Cape of Altano*, having three rocky *islets* annexed. All the land is mountainous, and without shelter from the westward.

ISLA DE SAN PIETRO, OR ISLAND OF ST. PETER. This is a triangularly shaped *island*, lying to the S. S. W. (*S. Westward*) of *Cape Altano*, being 5 miles long from N. to S., and about $4\frac{1}{2}$ miles broad in the broadest part. Off its N. eastern point lies the little *Island Piana*, there being no passage between the point and the island, except for boats. E. by N. (*E. $\frac{1}{2}$ S.*) from *Piana Island*, distant $2\frac{1}{2}$ miles, is the S. West Point of *Port Scuso*, in *Sardinia*. Off this is a little island, and midway, but a little northerly, between the island and point, is a ledge of rocks; this lies in the middle of the northern channel, and must always be carefully avoided. The eastern shore of *St. Peter's Island* is low and sandy; its general direction is South (*S. by W. $\frac{1}{2}$ W.*) for upwards of 5 miles, or to the S. E. point: about half way is situated the *Carlo Fort*, and near it, on a point which projects further out, is another little battery, serving to defend the road.

PORT ST. PIETRO. This roadstead is well sheltered from westerly winds, having a good depth of water, 7, 6, 5, and 4 fathoms; but you must be careful to keep the lead going when you are sailing through it, for there are numerous spots and patches of shoal water, some of which have 2, $2\frac{1}{2}$, and 3 fathoms over them. These are accurately laid down on our *Chart*, and will be more explanatory to the mariner than any description we can give him.

The northern part of *St. Peter's Island* runs about W. S. W. (*W. $\frac{1}{2}$ S.*) from the *Island Piana* to *Point Burrone*: in this distance are two or three coves, of no use to the mariner; there is also a rock above water, called the *Slea Rock*, but it lies close to the land, and near *Point dell Ocher*. Off *Point Burrone* is the *Gallo Rock*, lying three-quarters of a mile from the land, and having a passage between, with 21 fathoms in it. The coast thence slopes, in an irregular, broken manner, to the S. westward, having the small cove *Beco* about half-way. Off the southern point of the *Island* are several rocks above water. The western side of *St. Peter's Island* is high, and appears reddish, bending irregularly downwards.

ISLAND SAN ANTIOCO. This *Island* is somewhat larger than that of *San Pietro*, and lies in nearly a true north and south direction, being from *Seta Point* to *Point Sperone* nearly 10 miles long, and 5 miles broad; its northern part forming the southern boundary of the *Port St. Pietro*. The *Island of Antioco* is divided from *Sardinia* by a channel of very shallow water, not navigable for shipping, and a sandy flat extends all the way from *Point Seta* to *Port Scuso*. The southern entrance to *Port St. Pietro* is between the *Island* of that name and *San Antioco*; the channel being 2 miles broad, and without any danger, if you only give each side a good berth. The northern channel, between *Piana Island* and *Port Scuso*, is much narrower, on account of the rocky shoals within it: a reference to the *Chart* will readily explain this.

Near the northern Point of *San Antioco* are two or three small coves for galleys to run into; and to the southward are some others of the same description. Having arrived at the southern end of *San Antioco*, you will see a large rock, called *Vacca*, the *Cow*, with some smaller ones lying near it: these are situated S. E. by E. (*S. E. $\frac{1}{2}$ S.*) of *Point Sperone*, from which it is distant $2\frac{1}{2}$ miles. There is a good channel on either side, leading into the *Gulf of Palmas*; but it is better to take the passage between *Vacca* and *Sardinia*, because of a sunken rock which lies near the *Island Antioco*.

GULF OF PALMAS. This is an extensive and good Bay, formed on the west by the *Island of San Antioco*, on the east by the *Island of Sardinia*, and on the north by some broken land, through which there is a boat communication to the *Port St. Pietro*. The Bay is above 5 miles in breadth, and nearly the same in depth: there is sufficient room in it for a whole fleet to anchor in from 12 to 4 and 5 fathoms, muddy ground, and holding well; but it is exposed to the winds from the S. W. by W. to the S. by E. In entering from the southward, you will see two large rocks, *Il Toro*, the *Bull*, and *Vacca*, the *Cow*; the latter has been already noticed. *Il Toro* lies nearly South (*S. by W. $\frac{1}{2}$ W.*) from the south Point of *Antioco*, distant $5\frac{1}{2}$ miles, and

from *Cape Teulada* W. $\frac{1}{2}$ N. (*W. N. W. $\frac{1}{2}$ W.*), distant 11 miles; being in latitude $38^{\circ} 52' 0''$ N., and in longitude $8^{\circ} 22' 30''$ E. There is reported to be a *rock* to the southward of *Toro*, on which the *Fox Cutter* struck, but received no damage: this also appears to be confirmed by the *Chichester* seeing dangerous breakers hereabout, and by the *Wassanaer*, Captain Larmour, who saw and describes the same kind of danger. This danger does not appear to be ascertained in its exact position or extent; but Captain Smyth has placed it in latitude $38^{\circ} 41' 0''$ N., and longitude $8^{\circ} 29' 0''$ E.; and it will so appear on our Chart. Whether, however, this danger be real or imaginary, the mariner, in making for this part of *Sardinia*, will do well to be apprized of its probable existence, and to guard against it. There is no danger whatever in entering the *Bay of Palmas* between the *Toro Rock* and the *Vacca*, nor between them and the *Sardinian* shore, unless you approach too near the latter.

On leaving the *Bay of Palmas*, the Coast of *Sardinia* runs S. S. E. (*S. $\frac{1}{2}$ E.*) towards *Cape Teulada*. About 2 leagues before you come to this *Cape*, the land bends inward, and forms a kind of *Cove*, called *Port Pino*, where a tunny fishery is carried on: southward of this is *Cape Piombo*, having a *watch-tower* upon its summit. Off this *Cape* is a *rock* under water, lying full half a mile from the *Cape*, and having deep water all round it: between it and the *Cape* are 14 fathoms; but no ship should venture through this passage, it being very dangerous: it will therefore always be proper to give this point a wide berth, either in entering or departing from the *Gulf of Palmas*. Between *Cape Piombo* and *Cape Teulada* there is a *Cove*, with from 10 to 4 fathoms water in it. *Cape Teulada* is in latitude $38^{\circ} 51' 36''$ N., and longitude $8^{\circ} 36' 42''$ E.

BAY OF ROSA, or TEULADA. This *Bay* is formed on the west by the *Point of Teulada*, which is high, ragged, and presents a barren appearance. Its eastern point is called *Cape Malfatano*, distinguished by a *tower* on its summit, and a *sunken rock* near its base. This *Cape* is distant from *Cape Teulada* about 8 miles, bearing from it E. by N. (*E. $\frac{1}{2}$ S.*). Within this *Bay* is the little *Island of Rosa*, which gives its name to the *Bay*: the *island* is flat and rocky, having a reddish colour. There is anchorage along the western side of the *Bay*, or behind the *Island Rosa*, here being room for 7 or 8 vessels, which will remain secured from all winds. You can enter either by the east or west end of the *Island*; but should not carry much sail, as the anchorage is about a cable's length inside the *island*: steady your vessel with a *kedg*e or a *fast* on shore, for the wind will vary during the nights, although it may blow strong in the offing. In the western passage you will have from 9 to 6 fathoms, keeping nearest to the *island*; in the eastern channel, from 20 to 17 fathoms, good holding ground. Should you be driven to the eastward of the *island*, and a calm come on, attended with a swell of the sea, you should anchor in time; for as the bottom of the *Bay* is bad, you would find its shores dangerous.

Two and a half miles to the N. eastward of *Rosa* is another little *islet*, with a number of *rocks* about it, having only 6, 8, and 10 feet water over them; it therefore is dangerous for any vessel to approach towards it. Water may be obtained at a little river to the N. eastward; but you must first go to the *tower* on the N. side of *Rosa*, where you will obtain a guard while you are procuring your water. This *tower* you must not go to, unless you come from some other part of the *island*; and it will be very hazardous to land without a guard.

From *Cape Malfatano*, E. by S. (*E. S. E. $\frac{1}{2}$ S.*) about 2 miles, is *Cape Spartivento*, in latitude $38^{\circ} 52' 0''$ N.: this *Cape* is encumbered with several small *rocky islets*. Between the two *Capes* is *Port Malfatano*, shoaling inwards from 10 to 2 fathoms, and terminating in a sandy beach. This forms a safe retreat with westerly winds, but is quite open to the south.

E. N. E. (*E. $\frac{1}{2}$ N.*), about 34 miles from *Cape Spartivento*, is *Cape Carbonara*; from the former *Cape* the coast runs nearly N. E. (*E. N. E. $\frac{1}{2}$ N.*) to *Cape Pula*, a distance of nearly 11 miles; in this space you will pass several *watch-towers*. A little before you reach *Pula* is *Port St. Efficius*, a small place of very little importance.

GULF OF CAGLIARI. *Cape Pula* is the western *Point* of the *Gulf of Cagliari*, and *Cape Carbonara* is the eastern point; they bear from each other E. by N. and W. by S. (*E. $\frac{1}{2}$ S. and W. $\frac{1}{2}$ N.*), distant 24 miles. Near to *Cape Pula* is the little *Island of St. Macario*, with a *tower* upon its summit; there is also a similar *tower* to the S. westward, standing upon the *Point of St. Efficius*: the land hereabout is low, and full of trees. From hence the coast runs N. by E. (*N. N. E. $\frac{1}{2}$ E.*) to the *Tower* and *Point of Saorro*, about $3\frac{1}{2}$ miles. Small vessels may anchor on either side of the *Island of St. Macario*, or in the *Cove* to the southward, with from 3 to 10 fathoms, or before the *Village of Pula*, or between that *Cape* and *Cape Saorro*,

in from 4 to 10 fathoms, sandy ground, with a mixture of mud. There is a *tower* upon *Point Saorro*, and another to the southward of it, on *Point Colombo*; between these, somewhat inland, is the *Village of St. Roc*. The land now turns westerly, and then runs northerly so far as the *Town of Cagliari*, which lies at the further end of the *Gulf*, in latitude $39^{\circ} 12' 10''$ N., and longitude $9^{\circ} 6' 36''$ E.

THE TOWN OF CAGLIARI is the capital, and principal town in this division of *Sardinia*. It is situated near the mouth of the *River Mulargia*, is divided into four quarters, and has a castle and other fortifications; but the streets are narrow, and badly paved. It is the residence of the Viceroy, and has 38 churches, 23 monasteries, a theatre, a harbour, and good roadstead. The population is estimated at above 30,000, who carry on a considerable traffic in oil, wine, and salt, the latter article being prepared in the neighbouring extensive salt-pits. When a vessel arrives at this place, and gets abreast of the *Point of Pula*, the course up to the *Town of Cagliari* will be N. by E. $\frac{1}{2}$ E. (*N. E. by N.*), about 12 miles. All the way from *Cape Saorro* to *Cagliari* the shores are low and sandy, having several *watch-towers* on their respective *points*: nearly 6 miles to the northward of *Saorro* begin the openings into the great salt-lagoon, and these openings continue to within 1 mile of the town.

The *Gulf of Cagliari* has good anchoring ground, and depth of water for all kinds of vessels, shallowing gradually as you approach the shore: the holding is good, safe at all times, though the winds which blow out of the *Gulf* are frequently violent, and sometimes may prevent your coming to an anchor. The *Town* has a *Dock*, which is now much out of repair, and not fit for more than one or two *galies*; but you may anchor before the *Mole* in 3, 4, 5, and 7 fathoms; or in the little *Road*, to the southward of the *town*, in 6 fathoms; or at 3 miles' distance, in the great *Road*, in 8, 9, and 10 fathoms, sandy ground; or off *Cape St. Elias*, within half a mile of the coast, and near a small *rock*, in from 3 to 7 fathoms. To the eastward of *Cape St. Elias* is the *Bay of Quarta*, with anchorage in from 6 to 10 fathoms, distant one mile from the shore: it has a sandy beach, and shallows as you near it. E. N. E. (*nearly E. $\frac{1}{2}$ N.*), distant 4 miles from the eastern part of *Cape St. Elias*, is the *Tower of Fowi*, which is the termination of the *Bay of Quarta*. S. W. by S. (*S. W. $\frac{1}{2}$ W.*) from *Cape St. Elias*, and in the direction of *Cape Saorro*, a sandy and muddy flat runs out, having over it from 3 to 9 fathoms water; within it 11, 12, 14, and 15 fathoms: this tends considerably to shelter the anchorage. Some *watch-towers* are upon the coast, three of them standing on *Cape St. Elias*; and there are more to the eastward.

From the *Tower of Fowi* the land runs in a S. E. by E. (*S. E. $\frac{1}{2}$ S.*) direction, towards *Cape Carbonara*, having several *rocky points* with *towers* upon them, and between each a small *sandy cove*, for a distance of 11 miles, or until you are abreast of *Cape Boi*. Here the coast forms a *Bay*, usually called the *Bay of Carbonara*; within which, to the eastward, is the little *Island St. Nicolo*: several small rivulets empty themselves into this *Bay*, and the soundings gradually decrease from 30 fathoms at its entrance, to 6, 5, and 3 near its inner part. This *Bay* is terminated towards the south-eastward by the *Promontory of Carbonara*; at the extremity of which is the *Island Cavoli*, having a *watch-tower* upon its summit, and several *rocks* about it. There is a passage between the *Cape* and the *island*, about half a mile wide, with 10 fathoms; but this is seldom used, except by coasting vessels. *Cape Carbonara* is the south-eastern extremity of *Sardinia*, and is in latitude $39^{\circ} 4' 24''$ N., and longitude $9^{\circ} 32' 0''$ E.

The shore from *Cape Carbonara* stretches circularly to another *point*, upon which a *watch-tower* stands; here vessels may anchor in 4 and 5 fathoms: it then runs northerly, and is low flat land for the distance of 6 miles, where is another place of anchoring, near the coast, in 7 and 8 fathoms. One mile east of the above anchorage is *Cape Serpentaria*, off which lie three *islands*: the southernmost is named the *Great Serpentaria*, having a *castle* upon an eminence at its north end. At a small distance is *Little Serpentaria*, and to the northward, the *Isle of Servi*: there are channels between these *islands*, and also between them and the Sardinian shore, with anchorage in 10 or 12 fathoms water. In coming from the eastward, bound to *Cagliari*, and, in consequence of westerly winds, not able to get in, you may anchor here; but if unacquainted, and fearful, then sail southward, and luff up near *Cape Carbonara*. You will see a *point* W. N. W. $\frac{1}{2}$ N. (*N. W.*) of you, with a round hill near it: keep along shore until you are past the *rocks*, and a *point* standing near to a great *watch-tower*; anchor there in 12 or 14 fathoms, good *sandy bottom*. You cannot anchor

near the *tower*, for there the water is too deep. The coast all along is good sandy ground, and you may be supplied with water, wood, sheep, oxen, or what you most stand in need of.

Sailing to the northward, we now pass some high mountains, called the *Seven Brothers*, and situated near *Cape Ferrato*, between which and the *Isle of Servi* vessels may safely ride with westerly winds. The land from *Cape Ferrato* to *Cape Monte Santo* runs nearly in a N. $\frac{1}{2}$ E. direction (N. N. E.), being a distance of 50 miles. Upon the *Cape Ferrato* is the *Tower of Mount Ferro*; further on is that of *Xalinas*; and beyond that, distant 8 miles, N. $\frac{1}{2}$ W. (N. by E.) from *Cape Ferrato*, is the *Tower of Arubilo*; and beyond that is the entrance to the large *River Flumendosa*, one of the two principal rivers in the island. Three miles northward of this river is the *Castle of Lorenzo*; $3\frac{1}{2}$ miles from which lies the south end of the little *Island of Chirra*, with some rocks about it, but having a clear passage for coasting vessels between it and the land. Opposite to *Chirra Island* is a small river; and to the northward is *Murtas Tower*, standing on a point near the sea: 5 miles further is the *Tower St. Gio de Sallara*; 3 miles beyond which is *Cape Sferra Cavallo*, the coast between bending inward like a little Bay: from thence to *Cape Bellavista* the distance is nearly 5 leagues: in this space are some small coves and towers, but of little note.

OGLIASTRA. *Cape Bellavista* is the southern point of the *Roadstead of Olaster*, or *Ogliastra*, its northern point, *Cape Monte Santo*, being $8\frac{1}{2}$ miles distant: there is a small island midway of the entrance, forming two channels, behind which is good anchorage, where three galleys may be moored with hawsers to the shore. Vessels going to load at *Olaster*, anchor within the south-east point, upon which are two watch-towers, and get their fresh water at a little river on the opposite side of the Bay, under a tower. This port may be known by the mountain to the northward, called *Monte Santo*.

Having rounded the *Cape Monte Santo*, there are two small Coves, *Sesina* and *Luna*; nearer the latter is the *Village Baunai*, and the *Cala* or *Cove Osalla*, a little to the northward of which is the district division of the island, from *Cagliari* to *Sassari*.

OROSEI. The coast from *Cape Monte Santo* to *Cape Comino*, in latitude $40^{\circ} 31' 10''$ N., is called the *Gulf of Orosei*, these points bearing from each other N. $\frac{1}{2}$ E. and S. $\frac{1}{2}$ W. (N. N. E. $\frac{1}{2}$ E. and S. S. W. $\frac{1}{2}$ W.), distant 21 miles.

The *Town of Orosei* appears at the bottom of the *Gulf*, about 15 miles from *Monte Santo*, to the S. eastward of which is good anchorage, but open. Upon *Cape Comino* stands a tower, and round its point are several rocks. About 2 leagues to the north-westward of *Comino* stands the little *Town of Posada*, before which you may anchor in 3 and 4 fathoms water. In this track you will pass the *Towers of Seniscola* and *St. Lucia*: near the latter is a small river; here, inland, you will see the *Mount Albo*, which serves for a mark for this part of the coast. Two miles beyond *Posada* are the *Pedrami Rocks*, which run out a considerable way from the shore, and must have a berth in passing. Following the land, which here turns N. by W. $\frac{1}{2}$ W. (N. $\frac{1}{2}$ E.), you will see the *Petrosa Rock*, situated close in-shore; and beyond that is *Point St. Anna*. The coast now bends in to the westward, and forms *Port Sebatano*; it then juts out to *Cape Coda Cavallo*.

Cape Coda Cavallo bears from *Cape Comino* N. by W. $\frac{1}{2}$ W. (North), distant 18 miles: it is in latitude $40^{\circ} 49' 10''$ N., and near it are the two small *Islets of Rosso* and *Testi di Moro*, within which is a Cove with 8 fathoms water. Northward of the *Cape* are the *Islands Molara* and *Tavolara*, with the lesser *Islands* to the eastward of the former, called *Cervi* and *Tauladetto*, between all which are good passages and deep water. We now approach the *Gulf of Terranova*.

THE GULF OF TERRANOVA. This *Gulf* is formed by the *Cape Ceraso* on the south, and *Cape Figari* on the north; the latter has the high *Island of Figarello* to the southward, and runs in westerly nearly 7 miles. At its entrance the *Gulf* is open, and between 6 and 7 miles wide, with a depth of water of from 14 to 27 fathoms, without any danger. There is a small spot of 9 fathoms about a mile to the northward of *Point Sperlato*; but there are 11, 12, 13, and 15 fathoms round it. Following the southern shore, and having passed this spot, there is a Cove runs in southerly, which leads to *Port Vitello*: an island is situated at the bottom of this Port, and the shores around it are all rocky; but the centre is muddy ground, and has from 7 to $3\frac{1}{2}$ fathoms water, shallowing as you advance within it. To the westward is the channel which leads to the *Town of Terranova*. The entrance is very narrow, and divided by an island into two passages: this is commonly called the *Bar*, and has $1\frac{1}{2}$, 2, 3, and $3\frac{1}{2}$ fathoms water over it; but when you get past it, your water will deepen to 6, $5\frac{1}{2}$, 4,

and 3 fathoms, the latter depth being near the town. Before the town are several rocky islets, lying on a sandbank of shallow water, with many rocks under water: there is a channel to the town on either side of it. Outside of the *Bar* the anchorage is considered to be good, on a bottom of mud, but open to northerly and easterly winds. This town was formerly very populous, but of late years has been much neglected; and though the harbour is very good, especially for merchant vessels, yet its commerce is of no importance. There are several streams of fresh water about it, and some ruins of Roman architecture in its neighbourhood. The town is in latitude $40^{\circ} 54' 40''$ N., and longitude $9^{\circ} 29' 30''$ E.

GULF OF CONGIANUS. N. W. by N. (*N. by W. $\frac{1}{2}$ W.*) from *Cape Figuri*, distant nearly 9 miles, is *Cape Libano*, and between them is the *Gulf of Congianus*, within which are the *Ports of Marinella* and *Congianus*, both forming places of shelter for small vessels, especially with southerly winds, the land to the S. and W. being mountainous. At the northern entrance of this Gulf there are several islands, the principal being the *Isles of Mortorio* and *Soffa*, the former lying in latitude $41^{\circ} 4' 42''$ N., and longitude $9^{\circ} 36' 5''$ E.: off its N. eastern point are some rocks above water, called *Testa de Cane*, with deep water around them, and a channel between them and *Mortorio*: there are also several little islands between *Mortorio* and *Soffa*, and a passage between. To the northward of these, and between them and *Cape Libano*, is a cluster of rocks and rocky islets, called *Dei Poveri*: there are channels between them all, but they are best known by the natives. To the N. eastward of *Cape Libano* is a cluster of rocky islets, called the *Libano Islands*. To the N. W. (*N. N. W. $\frac{1}{2}$ W.*) of the *Libano Islands*, distant nearly 3 miles, is the *Island of Biscie*, in latitude $41^{\circ} 9' 45''$ N., having a few rocks above water off its northern end. About a mile to the southward of *Biscie* is *Cape Ferro*, there being a channel between the *Island* and *Cape*, with 12 and 18 fathoms. Between *Libano* and *Cape Ferro* there are two coves, one running in westerly behind the *Libano Isles*, and by some called *Port Libano*; the other nearer to *Cape Ferro*, and named *Port Cervo*: the first is too open to the north; but *Port Cervo* is well sheltered, and has sufficient depth for merchant vessels, there being 6, 7, and 8 fathoms within its entrance, but shallowing as you advance within it.

To the N. westward of *Cape Ferro* are the *Caprera*, *Maddalena*, and other *Islands*, usually denominated the *Archipelago of the Magdalen Islands*; between which are numerous anchorages and passages, forming the southern part of the *Strait of Bonifacio*. We shall briefly notice these, and then lay down directions for conducting vessels through them.

The *Island Caprera* is of an irregular form, and lies nearly N. and S. (*N. by E. $\frac{1}{2}$ E.* and *S. by W. $\frac{1}{2}$ W.*), being in length, from *Point Rossa* to its N. E. point, $4\frac{1}{2}$ miles, and $1\frac{1}{2}$ mile in breadth: the whole is elevated land. At the distance of $1\frac{1}{2}$ mile from the east point of *Caprera* lies a cluster of rocks, called the *Monks*: the passage between them and the island is clear of every danger, and has a depth of 38 fathoms; you may approach them on every side with safety, and have not less than 9 fathoms. In nearly a similar direction, but further east, distant from the *Monks* about $1\frac{1}{2}$ mile, are some rocks, upon which H. M. S. *Excellent* struck, in 1804, and which have not more than 9 feet over them: these are extremely dangerous, and must not be approached nearer than 17, 15, or 14 fathoms. When upon this, the following compass bearings were taken: the *Pedestal Rock*, which is a remarkable rock, or summit of an inland hill so called, on with the *Island of Biscie*, bearing S. W. $\frac{1}{2}$ S.; the south point of *Caprera* on with a singular rising of a hill on the opposite shore, bearing W. S. W. $\frac{1}{4}$ W.; and a remarkable gap in the west end of the *Island Tavolara* a little open to the westward of the high peak on *Cape Figuri*, bearing S. by E. by compass.

BISCIE ROCK. This is a reef of 20 feet water, and sometimes called the *middle bank*. Its extent from E. to W. is about one mile, and the depths from it gradually increase in this direction to 13 fathoms. Its western part, which is most dangerous, bears from *Biscie Island* N. by E. (*N. N. E. $\frac{1}{2}$ E.*), distant $1\frac{1}{2}$ mile; from the *Excellent's Rocks* nearly S. S. W. (*S. W. $\frac{1}{2}$ S.*), about 2 miles; and from the S. point of *Caprera Island* E. N. E. $\frac{1}{4}$ N. (*E. $\frac{1}{4}$ N.*), distant 3 miles. The mark for entering between the *Excellent's reef* and the *middle reef* will be, by bringing a small hill on the coast, at the bottom of *Arsakena Bay*, on with the middle of three peaks upon an inland mountain, bearing S. W. (*S. W. by W. $\frac{1}{2}$ W.*). The leading mark between *Biscie Island Rocks* and the *middle shoal*, is the S. point of *Caprera Island* on with a notch in a mountain inland, bearing W. S. W. $\frac{1}{4}$ W. (*W. $\frac{1}{4}$ N.*). *Biscie Island Rocks* should not be approached nearer than 15 fathoms; but giving a proper berth to these rocks, the passage is clear, and the depth sufficient for any vessel.

ARSAKENA, or ARSACHENA SOUND. This is an extensive opening, which runs in to the southward of *Caprera Island*; and the channels into it, from the eastward, are those which have been just described. The general marks by which you may know when you are within all these reefs, will be by bringing the *Pedestal Rock*, before mentioned, to bear S. S. W. (*S. W. $\frac{1}{2}$ S.*), and the gap on the west end of *Tavolara* open to the eastward of the *high Peak of Figari*, this being an object which is always visible. Nearly S. S. W. (*S. W. $\frac{1}{2}$ S.*) from *Point Rossa*, the southern point of *Caprera*, distant three-quarters of a mile, is a shoal of 3 fathoms, lying directly in the fair-way of the channel, round which are from 9 to 13 fathoms: having passed this, you will have the *Gulf of Arsakena* open, and may anchor where convenient, or to the westward, before *Port Salinas*, in 12 or 13 fathoms water.

MADELAINE, or MADDALENA ISLAND. This is a large island lying to the N. westward of *Caprera*, being nearly $3\frac{1}{2}$ miles in length, and $2\frac{1}{2}$ miles in breadth. A ridge of hills occupies the centre of the island, on the summit of one of which, at the southern part of the island, is an old fortress: it is nearly of a similar height and appearance to *Caprera*, being rugged and bare, the hills commonly terminating in a sharp point. Between *Caprera* and *Madelaine* there is a passage, but too intricate and shallow for shipping; in this, which is called the *Monnie Channel*, is an Island, called *Giardinelli*, or *Isoleddu*: there is also a rock under water off the northern point of *Caprera*. On the south side of *Madelaine* stands the town, before which vessels may find anchorage. Near the S. W. end of the island, named *Point Tegge*, is another small fort.

Between the Islands *Caprera*, *Madelaine*, and the Coast of *Sardinia*, is the *Island of St. Steffano*, which is lofty, and has a channel all round it. Here, near the main, is the *Sound of Agincourt*, having good anchoring ground; but N. W. winds are frequently very violent. The N. W. point of the Sound is *Point Sardegna*; $1\frac{1}{2}$ mile west from which is *Port Pollo*, or *Poglio*, containing anchorage; and further on, *Porto Liscia*, or *Liche*, where the anchorage is good. To the westward of this is *Porto Puzzo*, a narrow channel, fit for small vessels only. The land then winds north and N. W. to *Point or Cape Falcone*, from which a W. by S. $\frac{1}{4}$ S. (*W. $\frac{1}{4}$ N.*) course for 5 miles, will conduct you to *Cape Della Testa*. To the westward of *Madelaine*, distant 2 miles, is the *Island Spargi*, a square-formed island, about $1\frac{1}{2}$ mile long, and one mile broad. A little way from the northern part of *Spargi* is the little *Island of Spargiotto*; there are some rocks above water lying between them. To the northward of *Madelaine* are the *Barrettini Islands*, and the group of *St. Marie*, *Preza*, *Budelli*, and *Razzoli*, which usually are called the *Barolino Islands*. Between all these are passages used by the natives; but seldom or never attempted by those navigators who are merely desirous of passing through the *Strait of Bonifacio*.

In sailing through the *Strait of Bonifacio* from the eastward, the most advisable way will be to make the *Island of Tavolara*, being the object most remarkable on this side of the *Strait*. In appearance it is high and steep, and when bearing, by compass, N. N. W., looks like a square piece of land: when you are to the northward of the island, its eastern point seems like a small round island, lower than any other part; and it has a remarkable gap or chasm at the summit of its western end. The *Island Molar*, which is a little to the southward of *Tavolara*, is not so high as the latter island, and has to seaward a remarkable sugar-loaf rock. To the N. W. $\frac{1}{2}$ N. (*N. N. W.*) of *Tavolara*, you will see *Cape Figari*, moderately high and steep on its N. eastern side. In the same direction from *Cape Figari* is *Mortorio*, at some distance from the shore, with some rocks above water near it. To the N. N. W. $\frac{1}{2}$ W. (*N. by W.*) of *Mortorio* is *Caprera*, *Madelaine*, and the other islands.

To sail between *Madelaine* and the *Barrettini Islands* the course will be West (*W. N. W. $\frac{1}{2}$ W.*); steer on at about 70 fathoms' distance from the north point of *Madelaine*, and round it; you will then pass at nearly $1\frac{1}{2}$ cable's length from the outermost rock, which lies to the N. westward of that point. This rock is always above water, and bold close-to. The channel is narrow, but has plenty of water, and may be easily taken with a fair wind, but not otherwise. After having passed the *Barolino Islands*, which lie to the northward, steer W. $\frac{1}{2}$ S. (*W. by N.*), and with this course you will pass *Longo Sardo* and the *Cape Della Testa*; or you may take the great passage, and steer to the northward of the *Barolino Islands*, this being perfectly safe, and clear from danger. The general course through will be W. S. W. by compass; and when you find yourself to the southward of *Lavezzi*, then turn a little more to the westward. Here *Longo Sardo* will appear to be right a-head, appearing moderately elevated, and with a tower on its summit.

In sailing through the Strait of Bonifacio from the westward, it will be advisable to get sight of the Island of Asinara, which in fair weather will be visible full 12 leagues off; and should it be night when you arrive here, with the intention of running through, bring the Island to about the distance of 2 miles, when the land will be distinctly seen: by so doing, you will be certain of avoiding the Monk Rocks, which lie off the S. W. part of the Island of Corsica. From Asinara shape your course for Della Testa, which may easily be distinguished, either from the eastward or the westward, by its rough and rocky appearance. From Della Testa you may steer so as to pass between the Islands of Lavezzi and Razzoli, or to the southward of the Barelino Islands, as circumstances may require. The Island Lavezzi is low and rocky, and appears, when you are 8 or 9 miles to the westward of it, like a cluster of rocks.

If you are going from the north-westward to any of the anchorages at the north of Sardinia, or between that and the Madelaine Islands, first make the land of Della Testa, as before directed, and being abreast of Cape Falcone, Cape Della Testa bearing S. W. $\frac{1}{2}$ W. (W. S. W.), distant $4\frac{1}{2}$ miles, steer S. E. (S. S. E. $\frac{1}{2}$ E.) about 6 miles, or until you get the Island of St. Steffano well open of the S. W. point of Madelaine; this will bring you to the entrance of Agincourt Sound. Captain Ryves observes, that in making this Sound from the westward, "immediately after you have passed the Point of Spargi, you will get into 25 fathoms water, and may then approach close to the shore, either of Sardinia, or of the Island of Madelaine. The best anchorage, in winter, is found by hauling close round Point Liche, opposite to Madelaine, in about 15 or 16 fathoms, under the high rocks of the Sardinian shore, where you will ride land-locked. The two rocks going round Cape Liche are bold close-to, and may be passed on either side, having between them and Madelaine 10 fathoms; between them and the other rocks are 20 fathoms. Should the wind be S. or S. E. when you have reached Cape Falcone, you may stand to the eastward, passing between Spargiotto and Budelli: you will have 28 fathoms half a mile to the northward of Spargiotto, and 14 fathoms close to a large rock at the south end of Budelli. When you get through this passage, you will enter a large sound, in the centre of which are 35 fathoms. There is no danger except what is visible; and any of the shores may be approached within less than half a mile with safety. The water rises and falls 3 feet, dependent upon the winds; and the current, when it blows hard, runs round Point Riche at the rate of $2\frac{1}{2}$ miles an hour. The anchoring ground is extremely good."

In going through the Strait of Bonifacio, either from or to the westward, the greatest attention should be paid to the tides and currents.

SECTION VII.

THE WESTERN COAST AND ISLANDS OF ITALY.

FROM THE GULF OF SPEZIA TO CAPE SPARTIVENTO.

Variation, nearly One Point and a Half West.

1. THE COAST OF TUSCANY AND ADJACENT ISLANDS.

From Magra River the Coast of Tuscany bends in somewhat circularly to Viareggia, a town in the Duchy of Lucca: the shores are low, but the interior of the country has a lofty appearance. In this space you will observe several detached villages, and also the towns of Carrara and Massa, all of which are visible from the sea as you sail along.

VIAREGGIA is a sea-port, lying in latitude $43^{\circ} 51' 35''$ N., and longitude $10^{\circ} 15' 0''$ E. Its town is inconsiderable, and has a population of 2000. It is situated West (W. N. W. $\frac{1}{2}$ W.), distant 11 miles from the City of Lucca. The Road of Viareggia is very little frequented; for the ground is bad, and there is no shelter from the sea-winds. The anchorage is close inland, near the Mole; but should a southerly

wind spring up, you must immediately quit, and run for *Spezia*. *Viareggia* bears from *Spezia* S. E. $\frac{1}{2}$ E. (S. E. by S.), distant 23 miles.

Four miles from *Viareggia*, in a south (S. by W. $\frac{1}{2}$ W.) direction, is the *River Serchio*, which runs up to the capital of *Lucca*. Midway between *Viareggia* and *Serchio* is the *Tower of Migliarino*. The coast continues in the same direction to the entrance of the *River Arno*, which is distant 6 miles, and 10 miles from *Viareggia*. The mouth of this river is in latitude $43^{\circ} 41' 40''$ N. There is a small fortress upon its southern bank, from whence it passes through the *City of Pisa*, a place formerly of great importance, and still exhibiting several remains of its ancient splendour. The low land which begins about *Viareggia*, and is commonly called the *Plain of Pisa*, continues southward towards the *River Arno*. Over this low land may be seen the *Steeple of Pisa*, that singular building the *Leaning Tower*, and the *Village of St. Pietro*, which latter stands about $3\frac{1}{2}$ miles up the *Arno*, and at the distance of half a mile from its southern banks. Three and a half or four miles further on you will see the *Tower of Tombolo*, or *Mezza Spigaglia*, and 5 miles further the *Mole* and *Lighthouse of Leghorn*. There are some shoals lying off the entrance of the *River Arno*, and also several sandy points running out to seaward from this low coast; therefore the mariner will do well to give it a berth, especially when coasting it along from the N. westward towards *Leghorn*.

LEGHORN, OR LIVORNO, OR LIVOURNE. This is a large town, and though not the largest, the most commercial town in Italy. It is situated in a marshy district, and built in a square form, being about $2\frac{1}{2}$ miles in circumference: towards the sea it is fortified, but towards the land it is only enclosed by a stone rampart. The streets are wide, clean, and well-paved; and the west end of the town is so intersected by canals, which convey merchandise to the very doors of the inhabitants, that it usually obtains the name of New Venice. Here are two basins of considerable magnitude; these are every night closed with a chain and boom, and the entrance is guarded by two forts. The outer harbour is protected from the swell of the waves, and from the wind also, by a *Mole*, which runs out nearly three-quarters of a mile into the sea: it is well-paved, and forms a handsome promenade for the inhabitants. By the side of this *Mole* the vessels enter, and when in, ride with their sterns towards it, having a cable fastened to the *Mole*, and an anchor out a-head, on a bank of 7 or 8 feet water: lying thus, there is room for two tiers of shipping, well sheltered from westerly gales. Large vessels lie near the *Mole Head*, where they have 19 feet water. To sail in, you must pass between the shipping and the *Mole*, and astern of the tiers. The *Lighthouse* is built upon a rock, and lies in latitude $43^{\circ} 32' 20''$ N., and in longitude $10^{\circ} 17' 30''$ E.

Vessels coming from the northward should run into the latitude of $43^{\circ} 45'$ N., and endeavour to clear the *Malora Bank*, which lies directly opposite to *Leghorn*, and is a quicksand of considerable extent, being, from North to South, full 4 miles long, and about 2 miles broad, and having from 3 to $1\frac{1}{2}$ fathom water over it, except towards its southern end, where a tower, having an archway, has been erected, on the shoalest part of the bank, to which it gives the name of *Malora*. The ground on this bank is principally mud and sand; but its outer edge and southern end are rocky: the water shoals gradually towards it in every direction. To avoid this bank in sailing to the northward of it, you must bring the guard-house tower, *Mezza Spigaglia*, E. by S. by compass, thus steering on until the lighthouse comes S. by E. $\frac{1}{2}$ E. by compass: hereabout, with southerly gales, you may anchor in 7 or 8 fathoms, muddy ground; or else, sailing further in, bring the lighthouse and *Point Nero* in one, and steer directly on for the harbour. Another mark for clearing the *Malora Shoal* to the northward, is the lighthouse in one with *Madona Church*, which stands upon the north-western side of *Mount Nero*; but if it should be hazy weather, and you cannot see this Church, you may be able to discover a hummock on its eastern side, which, by being kept a little to the eastward, will prove a good mark in all weathers. Here we must observe, that this passage is so clear and so extensive, that little instruction more than a bare inspection of the Chart, will be quite sufficient for its navigation: keep, therefore, your lead going, and when approaching the shore, run along at about a mile's distance, in $4\frac{1}{2}$, 5, and 6 fathoms, and anchor wherever you judge most convenient: the ground holds well, and the sea is generally smooth. There are six knolls in the *Road of Leghorn*, having from 4 to $3\frac{1}{2}$ fathoms water: it therefore will not be advisable to run into the *Road* with a large ship and a heavy sea; but with still water there will be no danger. The best anchorages are to the N. westward of the town, with the south end of the *Gorgona Island* just open to the northward of the *Malora Tower*, and the *Lighthouse* S. S. E. $\frac{1}{2}$ E., or S. E. by S.

(by compass); here you will have from $5\frac{1}{2}$ to 7 fathoms water, good muddy holding ground; or with *Malora Tower* W. $\frac{1}{2}$ S., and on with the *Island of Gorgona*, the *Lighthouse* S. by E., and the *Mole Head* S. S. E., in from 5 to 6 fathoms water: the above are all compass bearings. You should moor with your best bower to the westward, so as to have an open hawse with southerly winds, for these commonly send in a great swell of the sea.

During heavy gales from the southward and westward, the sea breaks over every part of the *Malora Bank*, and shallows those *knolls* in the *Road*; it is therefore necessary to under-run the cables, when the storm is over. If you are going into the *Road* at night, bring the *light* to bear S. S. E. $\frac{1}{2}$ E. (S. by E.), and take your soundings from the land; by doing which, you will always be certain of having cleared the *Malora Bank*.

Ships from the westward frequently make for *Gorgona Island*, which lies in latitude $43^{\circ} 25' 25''$ N., and longitude $9^{\circ} 53' 40''$ E., and is an excellent landmark for the *Road of Leghorn*, the *lighthouse* bearing from it E. N. E. (E. $\frac{1}{2}$ N.), distant 19 miles. *Gorgona Island* is high, and about $2\frac{1}{2}$ miles long, having two towers, and appearing almost round: there is an old monastic building upon it, and also several fishing huts. At its north end is a rock under water, but close to the island; and there is deep water all about.

Vessels having made the above island, and intending to go to the southward of *Malora*, should sail E. N. E. (E. $\frac{1}{2}$ N.) towards the *lighthouse*: bring it to bear due east by compass, and you will pass to the southward of *Malora Tower*, distant $1\frac{1}{2}$ mile. When you have got that tower to bear W. N. W. $\frac{1}{2}$ N. (N. W.), then haul up to the north-eastward for the *Road*, and anchor.

On approaching the *Roads* from the southward, your soundings will gradually lessen from 20 to 10 fathoms. *Point Nero* has two towers upon it (called the *Towers of Calafuria*); and one mile to the northward of the point is a fortress, called *Antignano*, standing on a low level shore, which continues thence all the way to *Leghorn*. On the north-western side of *Mount Nero* are a Church and a Convent, with a few houses near them: these objects form good marks for knowing the coast by. All the coast from *Point Nero* to the *Powder-house*, which stands on the beach to the northward of the *lighthouse*, is bordered with shoals and rocks, and always must have a good berth given to them. Vessels coming into the *Road*, should make the signal for a pilot, and no ship can go within the mole without one. Near this roadstead, nor in its vicinity, is there any safe shelter or good place for anchoring, nor with northerly or southerly winds is there much security here; but with these winds the water is commonly smooth, though heavy gusts sometimes occur; but when the W. by S. round to N. N. W. winds prevail, the *Malora Bank* breaks off the sea.

There is always a current, either from the north or south, setting through the *roads*; its general course is N. W. and W. N. W., sometimes running very strong; but this is much dependent upon the winds. The rise of the tides is hardly perceptible. Ships of war water at the *Lazaretto* at the back of the town, filling the casks with a short hose; this water is brought from the distant mountains of *Colognole* by means of an extensive aqueduct: wood is cheap and plentiful. The commerce of *Leghorn* is very extensive, being the residence of Consuls from all the principal States in Europe, supplying the interior of the Italian States with foreign articles of importation, and exporting their produce and manufactures. Its population is estimated at full 60,000, and almost all the inhabitants are engaged in commerce. The chief branch of their manual industry is in the working of coral and alabaster; but there are also establishments in the silk, leather, and paper trades.

From *Leghorn* to *Piombino*. Rather more than 11 leagues S. by E. $\frac{1}{2}$ E. (South) from the *Lighthouse of Leghorn* is *Point Baratto*; before you come to which, having passed the *Point of Mount Nero*, you will find the shores are low, but rise up gradually; and, at about the distance of 2 leagues inland, it becomes high. On the declining slope of the land you will see the *Towers, Towns, and Villages of Romita, Porto Vecchio, Vado, Cesina and Cesinetta, Bibona, Castagnetto, Vincenzo, Campiglia, Rimigliana, and Baratto*. This space is usually called the *Gulf of Vado*. Directly W. S. W. (W. $\frac{1}{2}$ S.) from the *Town of Vado*, distant 4 miles, is the *Shoal of Mal di Fetro*; this is very dangerous, and has only 9 feet water over it: report states it to have once been the ancient *Town of Vado*, now swallowed up and surrounded by the sea. There is a good passage inside of it, with from 3 to 8 fathoms water: bring *Leghorn Light* to bear N. N. W. (N. $\frac{1}{2}$ W.), and you will go between *Cape Cavallo* and the

Mal di Vetro. The channel on either side is good, and you may anchor, if necessary, any where between it and the shore.

Cape Baratto is a large high point, upon which is a small town, with a castle and tower near it; and to the northward of the town stands a redoubt, erected on elevated ground. To the eastward of the point you will see a large sandy cove, with a rocky point running to seaward; here also vessels may find anchorage. This low land appears, at a distance, to separate the point from the main, and makes it appear like an island. South-eastward from *Point Baratto* is the *Town of Piombino*, which, with the *Island of Elba*, forms the *Channel of Piombino*. The coast all the way from *Baratto* is rocky; and about 4 miles from the *Point*, and abreast of *Point Carconi*, there is a large rock above water, with some lesser ones near it; you will therefore give this part a good berth in passing.

PIOMBINO. This is a small town, although the capital of a Principality; the *Mole* is in latitude $42^{\circ} 53' 15''$ N., and longitude $10^{\circ} 32' 20''$ E. It stands near the sea, and is fortified, having a *Citadel* half a league to the eastward. You will here see a square tower, situated on the low point of some rocks; within which point there is safe anchorage with N. westerly winds.

GULF OF FULLONICA. This Gulf is formed between *Cape Piombino* and *Cape Troja*, or *Troja*, these points being distant from each other $12\frac{1}{2}$ miles. The course from *Cape Piombino* to *Cape Troja* is S. E. $\frac{1}{2}$ E. (*S. E. by S.*); the land between bends in circularly, and is all low and sandy, having several lakes, rivers, and towers within it. Directly East (*E. S. E. $\frac{1}{2}$ E.*) from *Piombino Point* is the *Town of Fullonica*, through which a small rivulet passes, and off which is a quay, with $1\frac{1}{2}$ fathom close to it. W. N. W. $\frac{1}{2}$ W. (*W. N. W. $\frac{1}{2}$ N.*) from this quay, distant 2 miles, is a rocky shoal of 9 feet, with a passage between it and the shore; and further on, in nearly a similar direction, is another; but this latter one lies close in to the land, and almost opposite to the *Tower of Mozza*. Rather more than 2 miles to the southward of *Fullonica* are the *Ferry* and entrance to the *Lake of Scarlino*, off which there is good anchorage in from 5 to 10 fathoms. You will next pass the *Towers of St. Nicolo* and *Civetta*, both standing on rocky points of the land; the former at the foot of *Monte Nero*, the latter near the entrance of the *River Alma*. The land hence is low and sandy until you reach *Cape Troja*.

Cape Troja, or *Troja*, is in latitude $42^{\circ} 47' 29''$ N., and in longitude $10^{\circ} 45' 45''$ E. Off its western point, distant about one mile, lies a rocky island, high, and having a watch-tower upon it. Upon the *Cape* is a square tower; and further inland is another, with a little village at the bottom of the landing-place. There are several rocks about the *Cape*, and one or two under water at the S. E. end of the *Rock Troja*; hence, although there may be 14 fathoms between the rock and the *Cape*, yet the narrowness of the channel should prevent you from going within it.

THE ISLAND OF ELBA. This island lies in an east and west direction, and is of an irregular form, being about 15 miles in length: its eastern part is 10 miles broad; but its western part is not above half that breadth, and in some parts it is not $2\frac{1}{2}$ miles across. The general appearance of this island is mountainous; nevertheless its climate is healthy, and it is calculated to contain full 14,000 inhabitants. Corn, olives, fruit, maize, and vines are here cultivated; and there are iron and copper mines. It has two principal harbours, *Port Ferrajo*, on the north side of the island, and *Port Longone*, on its eastern side.

Cape Vita, the northern point of *Elba*, is in latitude $42^{\circ} 52' 12''$ N., and longitude $10^{\circ} 25' 10''$ E. It bears from *Piombino* W. S. W. $\frac{1}{2}$ S. (*W. by S. $\frac{1}{2}$ S.*), distant 6 miles; and from *Cape Troja*, W. N. W. $\frac{1}{2}$ W. (*N. W. by W.*) 16 miles. Off its *Point*, about half a mile, is the small *Island of Topi*, between which and the *Point* are 7 fathoms. Further out E. S. E. $\frac{1}{2}$ E. (*S. E. by E.*) from the *Point*, distant 3 miles, is the *Island Palmajola*; and beyond that, almost in the same direction, is another, called *Cervoli*; these are both high islands, and each about one mile in circumference: *Cervoli* is distant from *Palmajola* $3\frac{1}{2}$ miles. On both these islands there is a watch-tower on the summit. *Cervoli* bears from *Cape Troja* W. N. W. $\frac{1}{2}$ W. (*N. W. $\frac{1}{2}$ W.*), distant 9 miles, and from *Piombino* S. by E. $\frac{1}{2}$ E. (*South*), nearly 5 miles. Off *Palmajola* are a few rocks, and a small shoal to the northward; there is also a bank of 10 fathoms between *Palmajola* and *Elba*, but *Cervoli* is steep all round. There is also a small knoll of $3\frac{1}{2}$ fathoms, said to lie to the northward of *Cape Vita*, distant one full mile, with 9, 10, 11, and 14 fathoms about it.

PORT FERRAJO. From *Cape Vita* a S. W. (*W. S. W. $\frac{1}{2}$ S.*) course for $4\frac{1}{2}$ miles

will take you to *Port Ferrajo*. This is a large inlet or *Bay*, lying on the northern side of the *Island*, bending inward about one mile, and being full as broad at the entrance. The *town* is on the starboard side, and built on a *point*, steep-to, and well-fortified: it is separated from the island by a *canal*, over which is a *bridge*. About 500 fathoms to the northward of the *Town* is a small round *island*: between it and the land you may pass in mid-channel without danger. About a cable's length to the westward of the *island* are some *rocks* under water. There is also a *lighthouse* built upon the N. E. point of the fortifications, which will be visible at a great distance.

When sailing into the *Port of Ferrajo*, keep 2 cables' length off the *point* of the *town*; then haul round to the westward, and anchor in 6 or 7 fathoms. Gallies carry fasts ashore to the foot of the *tower*, or to the other side of the *mole*. Large ships anchor further out in 12 and 15 fathoms, grass and mud. Toward the western shore the sea breaks, and the water becomes shallow. Near a *rocky point* on the opposite side of the *Bay* is good fresh water. The N. W. and S. W. winds are troublesome, but cause no great sea. Vessels going in by night, should take care not to get entangled by the tunny-nets, which lie N. E. $\frac{1}{2}$ E. (*E. N. E.*) from the *lighthouse*, and extend half-way across the *Bay*. There are salt-ponds on the low ground to the westward of the *town*, and others at the bottom of the *Bay*; but you cannot approach these on account of the shallowness of the water. Wood is plentiful and reasonable; fresh beef and vegetables may be had, but they are dear, and there is a good supply of fruits when in season.

On proceeding to the westward from *Port Ferrajo*, W. N. W. $\frac{1}{2}$ W. (*N. W. by W. $\frac{1}{2}$ W.*), a good mile from the *Point of the Town of Ferrajo*, is a great *point*, and near it two *shoals*, over which the sea sometimes breaks: in the same direction, distant $3\frac{1}{2}$ miles from *Port Ferrajo*, is *Point Infola*, with some *rocks* about it. Here the land bends in to the southward, forming a deep bay, with several small *sandy coves* within it, but without any shelter: it then turns to the northward, and runs westerly towards *Cape St. Andrea*, which is $5\frac{1}{2}$ miles distant from *Cape Isola*. A little to the westward of *Cape St. Andrea* is a *rock* above water, lying close in-shore; and further on is a *rock* under water, but this also is near to the land. The shore now turns round to the S. westward, until you come to a little *rivulet* called *Port Dorana*, $2\frac{1}{2}$ miles from which is the western *point*, *Cape Pomonte*. Here the land rounds S. E. $\frac{1}{2}$ E. (*S. E. by S.*) to *Cape Fetovaglia*, the whole of which is encumbered with *rocks*, and must have a berth in passing. There is a *rocky reef* off this latter point, which projects out to seaward. From *Cape Fetovaglia* an easterly (*E. S. E.*) course for $3\frac{1}{2}$ miles will carry you to *Point Porro*, the S. western *Point of St. Pierre del Campo*, which, with land-winds, is a good *Port*, but by no means to be depended upon with winds from the southward. You will know this place, in coming from the eastward or westward, by a large high *point*, with several *white spots* on it, more of which are to the eastward. On another *point* is a round *tower*; after this a *sandy shore* commences, having several *landing-places*, and some *villages*.

Off the starboard point, or *Point Dauve*, is a *rock* above water. When you are disposed to anchor in this road, come not within a cable's length of the larboard *point*, where you see a *tower*, because of some *rocks* under water, but keep as near mid-channel as you can; anchor over against the *tower*, or if you chuse, still further in. Off the *tower* you may place four gallies, with a cable moored to the shore: the bottom and the holding are good, being sand and mud. To the N. W. is the *Village of Campo*, and near it the *Castle of St. Hillary*. Almost in the middle of the *Beach* runs a *rivulet* with fresh water.

From *St. Pierre del Campo* to the eastward the coast appears thinly inhabited. E. by N. (*E. $\frac{1}{4}$ S.*) from *Point Porro*, distant $2\frac{1}{2}$ miles, is *Point Ponza*, the S. western point of the entrance to *Acona*. Off this *Point* are several *rocks* above water; 2 miles beyond which, in nearly a similar bearing, is *Point Stella*, distant $1\frac{1}{2}$ mile; having passed which, another *cove* opens, with deep water, and clear of any danger: several *rivulets* empty themselves into this *Bay*. Following the eastern shore, there are a few *rocks* running off its south-eastern point, called *Gemini*. Vessels coming to this *port* must be careful to avoid these; and having cleared them, may stretch on E. by S. (*E. S. E. $\frac{1}{2}$ S.*) for *Cape Calamata*, in latitude $42^{\circ} 42' 2''$ N., and longitude $10^{\circ} 24' 28''$ E. Having rounded this, which is the S. E. *Point of Elba*, you may bear up E. N. E. $\frac{1}{4}$ N. (*E. by N.*) for *Point Calvo*; a northerly (*N. N. E.*) course will then take you to the entrance of *Port Longone*.

PORT LONGONE. This *Port* or *Gulf* is at its entrance, $2\frac{1}{2}$ miles wide: its western shore runs in N. W. (*N. N. W. $\frac{1}{2}$ W.*) above 2 miles, where it narrows,

and becomes about half a mile wide: here, on the northern shore, is the *Town of Longone*, before which vessels may anchor. The port runs inward from the town full one mile, gradually lessening its depth of water until, at its further end, you find a sandy low beach. To the starboard, as you enter, is a considerable *fortress* or *citadel*, standing upon a *point of rocks* steep on all sides; and on the larboard is a small *fort*. You may anchor in a large deep creek beyond the *citadel*. E. S. E. winds blow right up the *Port*.

The northern point of entrance to *Port Longone* is commonly called *Point Arco*, and has a *rocky reef* running from it, which the mariner will be careful to give a berth to. From *Point Arco* the coast runs northerly for $1\frac{1}{2}$ mile to *Point Fico*, before you come to which you will see a *rock* lying close to the shore, and near it the mouth of a little river. Having rounded this *Point*, you will see *Rio*, and a little creek called *Ferriera*, with some *storehouses* and *iron-mines*: before these *storehouses* you may anchor, in cases of necessity, in 18 and 20 fathoms water; but neither is the ground good, nor are you sheltered from the sea-winds. There is a *watch-tower* on the S. E. *Point*, and near it a large *rock* above water.

N. N. E. (N. E. $\frac{1}{2}$ E.) from this *rock*, distant nearly 2 miles, is *Point Pero*; and from thence a N. W. by N. (N. by W. $\frac{1}{2}$ W.) course for $2\frac{1}{2}$ miles, will take you to *Cape Vita*, the northern *Point of Elba*: between them is a *square tower*, and near the northernmost *Point of Elba* a small round island, called *Topi*, between which and the land are 7 fathoms water; you may sail near the island at your pleasure: this island is distant from the shores of *Piombino* in *Italy* only 5 miles. It has been observed, that in sailing by the *Island of Elba*, the needle varies frequently, and is, we believe, attracted by the quantity of iron ore wherewith it abounds; this has been noticed more particularly on the south and on the east sides.

PIANOSA. S. W. by W. (W. S. W. $\frac{1}{2}$ W.) from the southern *Point of Elba*, about 5 leagues, lies the *Island of Pianosa*, the north point of which is in latitude $42^{\circ} 35' 10''$ N., and longitude $10^{\circ} 7' 0''$ E.: it is low, and full of shrubs, having few inhabitants. Off its northern point is a *rocky islet*, called *Marchese*, and to the eastward some *rocks* under water; also a large *rock* above water, called the *Turk*. Gallies may anchor all round the island with land-winds. On its eastern side is a small cove, fit for two gallies to anchor in, with their hawsers carried on the starboard shore. But off the starboard point of entrance is a *rock* above water, close to the point, and near it are two lesser ones: directly off the cove's mouth is a *rock* under water; also off the larboard point stretches a *bank*. To the southward are some anchorages; but the general place is in *Canier's Road*, where, from a *fountain* on the beach, you may get water, and lie in from 6 to 16 fathoms: you must always hold yourself in readiness for the sea-winds. Here are conveniences for getting wood. A *shoal* runs off *Point Pero*, with from 2 to 5 fathoms over it.

MONTE CRISTO is a high *Island*, its summit being in latitude $42^{\circ} 19' 40''$ N., and longitude $10^{\circ} 20' 0''$ E., lying S. E. by S. (S. S. E. $\frac{1}{2}$ S.) from *Pianosa*: it is about $2\frac{1}{2}$ miles long, and at a distance appears round. Off its south-eastern end is a *rock* above water, and you will find anchorage, in cases of emergency, on its S. E. side. There is also a *rock* above water on the western side; and to the N. W. is a cove, called *Cala Maestro*.

W. $\frac{1}{2}$ N. (W. N. W.) from *Cala Maestro*, distant 8 miles, is the *Africa Rock*, lying in latitude $42^{\circ} 21' 15''$ N., and longitude $10^{\circ} 8' 20''$ E.: there are several small *rocks* about it, and soundings all round from 5 to 33 fathoms. N. by E. $\frac{1}{2}$ E. (N. E. by N.) from the *Africa Rock*, distant 24 miles, is a small spot, called the *Africa Shoal*, on which are 24 fathoms; there are 4, 6, and 7 fathoms near it, and 17, 19, and 28 fathoms between them: these were formerly called the *Formigues*, or *Ants*, and are very dangerous, especially by night; and in day great care is requisite, lest, during a calm, the current should set you upon them. *Giglio Island* brought S. E. by E. (S. E. $\frac{1}{2}$ S.) will lead clear between *Pianosa* and *Elba*; and *Giglio Island* bearing S. E. $\frac{1}{2}$ S. (S. by E. $\frac{1}{2}$ E.), will lead clear of the *Formiches*, and between *Palmajola* and *Cervoli*. When obliged to go between these islands and *Corsica*, be careful to avoid approaching too near the latter; for though the island is high in this latitude, toward the sea it is low; so that you may be deceived, and think yourself a great distance off; when you are very near; in like manner, when you stand over to the eastward, be careful to shun the *Africa Rock* and *Shoal*, and *Pianosa Island*, which, as before observed, is very low.

THE COAST OF TUSCANY. From *Cape Troja* the shores of *Tuscany* run E. S. E. $\frac{1}{2}$ S. (S. E.) 4 miles to *Rochetta Tower*, which is a square building, with some fortifications around it: a little to the eastward of it is a small rivulet. E. by S. $\frac{1}{2}$ S.

(*E. S. E. $\frac{3}{4}$ S.*) from *Rochetta Point* 4 miles, is the *Town of Castiglione*, built at the entrance of the great *Lake of Grosseto*: between them the coast bends in circularly, having a low sandy shore. *S. E. $\frac{3}{4}$ S.* (*S. S. E.*) from *Castiglione*, distant 9 miles, are the *Point* and *River Ombrone*; the shore all the way is low, and forms a semicircular bay, within which stand the *Towers of Marsa, San Rocco, and Fort Trappola*: inland are *Mount Moscone* and the *Town of Grosseto*.

FORMICHES. *S. S. E. $\frac{3}{4}$ E.* (*S. by E.*) from *Cape Troya*, distant 12 miles, and *W. $\frac{3}{4}$ S.* (*W. by N.*) from *Point Ombrone*, distant 7 miles, lie the *Formiches*. This is a reef which stretches along in a *S. E.* by *S.* and *N. W.* by *N.* (*S. by E. $\frac{3}{4}$ E.* and *N. by W. $\frac{3}{4}$ W.*) direction for 2 miles, shewing three flat heads, which are above water, and some with only 8 or 9 feet over them; they are not very dangerous, because they will always be visible, and the water round them is very deep. The *Tower* on *Cape Troya* brought to bear *N. W. $\frac{3}{4}$ N.* (*N. N. W.*) will carry you inside of them; and the *Rock of Cape Troya*, and the opening of the *River of Campese* in *Giglio* in one, bearing *S. S. E. $\frac{3}{4}$ S.* and *N. N. W. $\frac{3}{4}$ N.* (*South and North*), will clear them to the westward.

From the *River Ombrone* the coast bends in easterly to the *Tower of Longo*, a space of nearly one league, when it turns *S. S. E. $\frac{3}{4}$ E.* (*S. by E.*), and continues in that direction to *Cape Telamone*. On the shore you will pass some small rivulets and the *Cala Forno*, a little cove, where small vessels sometimes put in: further south is the *Tower of Canelle*, standing on a projecting point of land.

TELAMONE. The *Village of Telamone* stands upon a steep point of rocks of the same name, distant from *Point Ombrone* 8 miles, and has some fortifications about it: on an eminence above *Telamone* you will perceive the *Town of Magliano*. *Telamone Bay* is much exposed to *S.* westerly winds; but the anchorage holds well, it is easy of access, and can receive vessels of all sizes, which may run in there in cases of necessity: there is a sandy beach, and some salt-water lagoons at the further end of the *Bay*, and near its *S.* eastern point is a *River*. In entering the *Bay of Telamone*, you should round the *citadel* at half a mile's distance, where you will be in 13 fathoms; near the point are 7 fathoms, and there is a similar depth in the middle of the *Bay*; but towards the sides it decreases to 3 and 4 fathoms: the bottom is soft mud. Here you may obtain fresh water, brought from the wells in the country, with plenty of sheep, oxen, and goats.

From the *Bay of Telamone* the shore extends south full 7 miles, forming a low sandy bight, with high lands in the interior: here are several rivulets, and about midway the *River Albegna*, with a tower at its entrance. A road continues all the way along from *Telamone* to *Orbitello*, which is situated at the end of a low point within the *Lake of Orbitello*, and from thence to the *Ruins of Ansidonia*. The entrance of the *Lake* will be known by a long low point, covered with trees, and sandy at its extremity; but it will only admit boats. The *Town of Orbitello* is fortified, and the *Lake* is nearly 5 miles in length, almost separating the *Point*, upon which stands *Mount Argentaro*, from the main.

Directly south (*S. S. W. $\frac{3}{4}$ S.*) from *Telamone* is the *Town of Stephano*, or *Stefano*, where there is a *fort*; and between it and the entrance to the *Lake of Orbitello* are two towers, the one round, the other square: there are also some ruins standing on a point to the eastward of *Stefano*.

MOUNT ARGENTARO is a lofty and extensive promontory, visible more than 10 leagues off, and at a distance, seen from the north or south, appears to be an island, separated from the main by the low land to the eastward. In sailing along it from the northward, you will see a small *Island*, which lies off its *N.* western point. There are no hidden dangers about it, but several watch-towers on its projecting points. Southward of the above *islet*, about a mile, is the *Village Domo*, near which is a *River*, which winds along shore, and ends in the little sandy *Bay of Rosso*, near which is an island of that name, having a channel between it and the main, through which coasting vessels commonly pass. To the *S. E.* (*S. S. E. $\frac{3}{4}$ E.*) of this *Island* is the *S.* western point of this promontory, having a tower upon it. The land now turns to the eastward, and is very high. Having rounded another point in that direction, you will see the *Fort of Stella*, and near it an island, formerly called *Hercoles*, now *Archetto*, beyond which is *Port Ercole*.

PORT ERCOLE. This *Port* is situated on the western side of an open bay, which reaches from *Point Stella* to *Point Ansidonia*, and is open to all winds from the southward. The *Port of Ercole* is a small place, and shut in between two high points: upon the western point are the *Fort* and *Town of Stella*, and on the eastern point the

Fort of Philip, which is considerable in point of strength. It formerly is said to have been a good harbour; but at present it is so completely choked up with mud and sand, that it affords convenience for a few galleys only, and these must lie alongside the town, with their heads to seaward, moored with 4 cables, in 4 fathoms, weeds and mud: at the entrance are 7 fathoms. All the western part of the *Port* is filled with *sandbanks*, which are continually accumulating. At the further end of the *Port* are some houses, and a fountain where you can obtain water. When a S. E. wind blows, it sends in a heavy sea, and there is then no shelter whatever.

From *Ercole* to *Point Ansidonia* a sandy beach continues, at the back of which you may see the *Lake* and *Town of Orbitello*. *Point Ansidonia* has two watch-towers upon it, and a little way to the eastward of them are the *Ruins of Ansidonia*, before mentioned. The *Point* projects out to seaward, and before it, distant $1\frac{1}{2}$ mile, is the *Formica of Ansidonia*, between which and the shore is a good channel, with 9 and 10 fathoms water, clear of any impediment.

THE ISLANDS GIGLIO AND GIANUTI. *Giglio* is an island lying in a N. W. by N. and S. E. by S. (*N. by W. $\frac{1}{2}$ W. and S. by E. $\frac{1}{2}$ E.*) direction, being full 4 miles in length, and $1\frac{1}{2}$ mile in breadth. It is high land, and has a town, fort, and several fishermen's houses upon it. On its eastern side is a small port; and to the northward is another, more open, called *Port Campese*: here are quarries of beautiful marble. Its inhabitants are computed at 1200, whose chief employment is fishing and agriculture: they also produce wine. Its northern point is situated in latitude $42^{\circ} 21' 40''$ N., and longitude $10^{\circ} 57' 0''$ E.

GIANUTI. This is a smaller island than *Giglio*, being only $1\frac{1}{2}$ mile long, and of a similar breadth. There is a small port on its S. eastern side, where vessels may lie sheltered from N. and westerly winds. This *Island* has a flat appearance, and is not of much elevation: its centre is in latitude $42^{\circ} 13' 10''$ N., and longitude $11^{\circ} 9' 0''$ E. It bears from *Port Ercole* S. S. W. $\frac{1}{2}$ W. (*S. W.*), distant 10 miles: from the *Island Giglio* S. E. $\frac{1}{2}$ E. (*S. E. by S.*), 8 miles; and from *Civita Vecchia* W. N. W. $\frac{1}{2}$ W. (*N. W. by W.*), 28 miles: there is deep water all round it. The currents round *Mount Argentaro* are frequently very strong, and principally governed by the winds. The shores are every where steep, and there is deep water in all the passages between it and the *Islands Giglio and Gianuti*; but there appears to be a small knoll growing up to the S. W. (*W. S. W. $\frac{1}{2}$ S.*) from the *Island Rosso*, distant $2\frac{1}{2}$ miles, over which there are at present 9 fathoms, with 50, 55, and 57 round about it.

2. THE ROMAN STATES.

From *Point Ansidonia* to *Terracina*. From *Point Ansidonia* the coast runs E. S. E. $\frac{1}{2}$ E. (*S. E. by E.*) for 10 miles, to the southern entrance of the *Lake of Burano*; then S. E. $\frac{1}{2}$ S. (*S. S. E.*) 11 miles, to *Clementino River*, from whence it rounds off S. by E. $\frac{1}{2}$ E. (*South*) 7 miles, towards *Civita Vecchia*. All along the shores are low, but the uplands lofty. In your course you will pass the *Rivers Tufone and Fiora*, with the *Towns of St. Agostino and Montalto*, this latter being situated upon a high mountain inland, and having a tower near the sea. Further on are the *Towers of Murello, Casaccie, Spelle, Bandita, Algar, and Clementino*: here is a small port, at the mouth of the *River Marta*, and to the southward are some salt-works. The *Town of Corneto* is about 3 miles up the land, and has a white appearance, with several towers and steeples, which distinguish it from other towns. Having passed the salt-works, you will see the *Convent Agostino and Tower of Aliga*, near which the low sandy shore terminates. A few rocks lie hereabout, one of which is half a mile off the land, and bears from *Aliga Tower* S. W. $\frac{1}{2}$ S. (*W. S. W.*); near it are $2\frac{1}{2}$ fathoms: be careful in passing to give this part a good berth, and a short distance from it you will have 14 and 15 fathoms; keep, therefore, a mile off the shore, and there will be no danger; and about 4 miles from *Aliga Tower* you will open the *River Fiumarella*, a little to the northward of the *Town of Civita Vecchia*.

CIVITA VECCHIA is the principal sea-port on this side of the Papal territories. The houses are well-built and spacious: there are an arsenal and a lighthouse, and a considerable commerce is usually established; but the situation is not healthy, and the water is impure. It has a population of 10,000, and is in latitude $42^{\circ} 4' 38''$ N., and longitude $11^{\circ} 44' 52''$ E.

Civita Vecchia may be known by the white town of *Corneto*, and *Cape Linaro*, which lies to the southward, and stretches more into the sea than any other. You will afterwards see the *Tower of the Lighthouse*, and the *Town of Civita Vecchia*. The

Town is well fortified with good walls and ditches, several half-moon batteries, and other fortifications; and towards the sea stands a very fine castle upon a peninsula, from which a mole stretches out 200 fathoms or upwards: opposite to the town is a new mole, built upon some rocks, having at the southern end a lighthouse, and near the N. W. extremity are some ruins. Over against the ends of this mole are two considerable forts or towers, serving to defend the entrances to the port: they are about 90 fathoms apart from the points of the mole; but the two towers enclose a large space, where galleys and ships may anchor on a mud and weedy bottom: you have a good channel on either side, taking care always to pass nearer to the new mole. At the northern entrance you will have 3 and $3\frac{1}{2}$ fathoms, observing a shoal with 2 fathoms upon it, lying about one-third from the northern tower's point: the southern entrance is the deepest, and free from all banks, having 8, 6, and 4 fathoms in it, keeping mid-channel. There are some rocks under water near the castle, therefore come not too near it: in this port are a dock and an arsenal; ships anchor either in the middle of the port, or off the new mole, in 16 and 18 feet water. You lie well sheltered from the sea and from all winds, unless it blows violently from the S. W.; when it is very troublesome within the mole. At the bottom of the port is the basin, which is shut up every night with a chain. If at night you cannot get into the port, you may anchor to the N. Westward of the head of the mole, at 3 or 4 cables' distance, in from 9 to 14 fathoms water.

S. E. (S. S. E. $\frac{1}{2}$ E.), five miles from the lighthouse of Civita Vecchia, is Cape Linaro, having a square tower upon it; and almost half-way is another tower on the sea-side, opposite which are several rocks stretching out a mile, which you must beware of. Cape Linaro, we have already said, stretches further into the sea than any other point upon the coast, and is a mark to know when you approach Civita Vecchia; you will also see the Church and Village of Marinella, which stand more to the eastward. There are many rocks about Cape Linaro, therefore you must always give it a wide berth; indeed the shore all the way from Civita Vecchia to Cape Linaro is encumbered with rocks.

From Cape Linaro the land runs in to the eastward for about 3 miles; here stands the Village of St. Marinella, above mentioned, from whence it turns southerly to St. Servera, a distance of $4\frac{1}{2}$ miles from Marinella. Near the Town of St. Servera stands the tower, on a point of low land: the whole shore from Linaro is low and sandy, with many small rivulets, and some rocks under water. Behind, and in the interior of the country, are Mount Castagna and other mountains, rising up to a very considerable elevation.

Five miles from the Tower of St. Servera is that of Flavia, the coast between bending circularly inward: within this space are many streams and villages, and further up the country is the Town of Cerveteri, standing upon a hill. Near Flavia is a little river, and off Galina Point are some rocks. To the southward is the Town of Palo, in latitude about $41^{\circ} 55' 0''$ N., and longitude $12^{\circ} 5' 30''$ E. Palo may be known by its having a large magazine, painted white, and standing by the side of the sea; and by the small Town of Monterone to the E. N. Eastward, with trees about it. You will now pass two other Towers, named Perla and Maccarese, and arrive at the entrance of the River Tiber.

THE RIVER TIBER. The River Tiber, which runs through the City of Rome, has two entrances: the northern one is called Fiumicino, in latitude $41^{\circ} 45' 48''$ N., and longitude $12^{\circ} 11' 30''$ E.; it bears S. E. (S. S. E. $\frac{1}{2}$ E.) from Cape Linaro, distant 22 miles; the other is Boca di Fiumara, and is 2 miles to the southward. The land which divides these two branches, is called Isola Sacra, and is woody. All the land about the entrances of the Tiber is low and marshy, and therefore not readily recognised; but with moderately clear weather, the Dome of St. Peter's at Rome will be seen a great way off to seaward, and when that is the case, you will want no other mark to point out your proximity: when you can bring this Dome to bear N. E. by E. $\frac{1}{2}$ E. (E. by N. $\frac{1}{2}$ N.) you will be in a line with the northern entrance of the River. By a notice, dated Rome 1825, it was announced that a new light had been established on the Clementine Tower, at the Fiumicino branch of the Tiber, and another on the Tower of Anzo, 28 miles more to the southward. The notice is worded thus: "The lighthouse, in which the light is successively shewn and concealed at equal intervals, has been tried with complete success in the Port of Anzo. Another has been placed on the Clementine Tower, in order to point out the entrance of the Channel of Fiumicino. These reflectors enlighten the sector comprised between Cape Linaro and Cape Anzo. The occultation and the bright light of Fiumicino may be distinguished by the naked eye from Palo, that is to say, at the distance of 11 nautic miles." The northern branch is the only one

that vessels of any burthen can enter by: there are 6 and 7 feet over the bar, and from 4 to 2 feet inside; it is of good width, but navigable only by small craft, and even these should have some knowledge of the place, on account of the *shoals*, &c. with which it now abounds. To the eastward is *Ostia*, or the haven; in former times the haven was at *Porto*. Two miles S. $\frac{1}{2}$ E. (*S. by W.*) from *Fiumicino* is a large octagonal tower, near the sea, with a kind of pavilion or look-out upon it; this will give you a perfect knowledge of the situation of the southern mouth of the river, which is of the greatest consequence. Near this tower are two large houses; but nothing larger than a boat can enter the *Fiumara* branch, there being no more than 2 feet over the bar, and 4 and 5 feet inside. There is good anchorage, with off-shore winds and during summer, from 3 to 6 miles W. N. W. or N. W. by W. from the square tower of *Fiumicino*, in from 6 to 13 fathoms, stiff mud, and good holding ground. Water may be taken from the river; but your boats should go well within the river, or it will be brackish: and, in cases of necessity, refreshments of all kinds may be had upon application to the British Consul at Rome; but this will be attended with additional expence, on account of the distance you have to convey them, for Rome is distant from the entrance of the Tiber 14 or 15 miles.

From the *Tiber* the land runs S. E. $\frac{1}{2}$ E. (*S. E. $\frac{1}{2}$ S.*), for 28 miles, to *Point Anzo*, bending somewhat circularly inward. The whole space is low land, with numerous rivulets, lakes, and towers within it: these are at the following distances from the *Tower St. Michael*, which stands at the *Fiumara* entrance: *Torre Paterna*, 9 $\frac{1}{2}$ miles; *Torre Vajanicu*, 12 miles; *River Torto*, 15 $\frac{1}{2}$ miles; *River Ardea*, which runs up to the town of that name 2 $\frac{1}{2}$ miles inland, 17 miles; *Tower of St. Lorenzo*, 20 miles; *Tower of Caldano*, 24 $\frac{1}{2}$ miles; the *Tower of Materna*, 26 $\frac{1}{2}$ miles; and the *Tower and Lighthouse of Anzo*, 28 miles. From *Cape Palo* southward to *Cape Anzo*, called the coast of the *Campagna di Roma*, or *Plain of Rome*, the land is so frequently obscured by foggy weather, that the objects on shore will not be distinguishable, nor can the land be made out with certainty: therefore, at such times, the greatest vigilance is requisite to prevent accidents, more especially as there is a current generally and imperceptibly setting you towards the land.

Cape Anzo Lighthouse is in latitude $41^{\circ} 26' 30''$ N., and in longitude $12^{\circ} 42' 0''$ E. The *Cape* forms a long projecting point, stretching out a considerable way to seaward, with several rocks about it: the land is somewhat elevated, and, as before observed, has a square tower and lighthouse upon it. The *Tower of Caldano*, seen to the northward, is round.

PORT NETTUNO. Eastward of *Cape Anzo* is *Port Neptune* or *Nettuno*, having a mole, shaped somewhat like an L; it is built upon a sandy shore, and out of the ruins of a large fort, said to have been built by the Emperor Nero: this mole stretches out to the southward 200 fathoms, and at its end a hook runs out 90 fathoms to the eastward, sheltering the vessels within it both from wind and sea. On the extreme end of the mole is a small square fort, and, further in, a tower, where a light is placed in the night-time, as a mark and signal for ships. In the angle of the mole is another fort, called *Fort Bayne*, near which are several magazines for the use of the harbour; and adjacent to them a chapel. Between *Cape Anzo* and this mole was formerly the old port; but the ruins of *Fort Nero* are visible, scattered about in several places, and it now is choked up. When you wish to anchor at the new port, or *Port Neptune*, coming from the westward, you must give these ruins a berth, because many fragments of them lie under water, and afterwards sail at discretion along the point of the mole where the lighthouse stands; then steering along, anchor with your starboard anchor, carry a fast from your stern to the east side of the mole, and another upon the mole to the N. W.: by this means you will lie with your stern to the mole, to seaward, and your head to the shore. Being moored close to the mole, you will have 16 feet, the bottom mud and sand; there is room for 6 or 7 galleys, and you are safe from the winds and the sea. E. N. E. winds are sometimes troublesome, but cause no great swell. As you go from the mole towards the shore, you will have 12, 13, 14, 15, and 20 feet water; but you must not go further in than the magazines. Almost in the middle of the mole is a fountain, where good water may be had without going out of your boats; there is also a handsome fountain near the beginning of the mole, beyond which is a large house, serving as a mark to know the port by, when you are at sea. Two miles E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ N.*) from the mole, is the small but ancient *Town of Neptune*; and scattered all about, from the port to the cape, are vaults, grottoes, baths, pillars, and other monuments of ancient magnificence.

MONTE CIRCELLO. About 21 miles S. E. $\frac{1}{2}$ E. (*S. S. E. $\frac{1}{2}$ E.*) from *Cape Anzo* is *Monte Circello*, a high mountain running into the sea; between these is a deep bight with a low and marshy shore; but about 5 miles S. E. by E. (*S. E. $\frac{1}{2}$ S.*)

from *Port Neptune*, stands upon a *point*, and having a *river* near it, the *Tower of Astura*: there are several *rocks* about this *point*, which must always have a berth in passing. In the intermediate space between *Point Astura* and *Monte Circello* are the *Towers of Foceverde*, distant from *Astura Tower* $1\frac{1}{2}$ mile; *Fogliano Tower*, 7 miles; and the *Fosso di Capo d'Olna*, 11 miles. The whole of this coast is lined with salt-lakes, which extend to the little *Village of St. Paolo*, at the foot of *Mount Circello*. The land at the back of *Astura* is woody, and from thence extend what are commonly called the *Pontine Marshes*. *Mount Circello* is 2 or 3 miles long. To the northward of the mountain is a *roadstead* with from 4 to 8 fathoms, opposite *Paolo* and *Victory Tower*, having some *trees* running along the shore. On the western point of *Circello* is a *watch-tower*; to the eastward is another; and further on is *Fico Tower*. About one mile to the N. E. of the point stands a *village* upon a low *sandy point*, called *St. Felice*: here you may anchor, in case of necessity, in 4, 5, 6, or 7 fathoms water, sandy ground; but you should not approach too near *Point Fico*, where stands a *square tower*, because of some *rocky banks* stretching from the shore, nor suffer yourself to be surprised by the sea-winds, from which you will have no shelter. *Monte Circello* is visible a great way off, and makes like an *island*, being very steep to the southward, and apparently divided from the main by the low land adjacent.

Eight miles E. N. E. $\frac{1}{2}$ N. (*E. by N.*) from *Monte Circello* is *Terracina*, the last town on this shore which is under the jurisdiction of the Pope; it is high land, and has some *ruins* on its summit. The coast between *Circello* and *Terracina* is low and sandy. About a league before you reach *Terracina* there is the *Tower of Badino*, and the little *River Sisto*. *Terracina* had formerly a good harbour, but that is now choked up with sand and mud; and the town, though fortified, is of little importance: the surrounding country is fertile, but marshy, and not considered a healthful situation. Traces of the old port are visible, and also of the *Via Appia* in its environs; while the *ruins* of the ancient *City of Anxur* cover the neighbouring eminence: yet, notwithstanding its present decay, the population is about 9 or 10,000. It is in latitude $41^{\circ} 16' 0''$ N., and longitude $13^{\circ} 15' 0''$ E.

3. THE ISLANDS PALMAROLA, PONZA, ZANNONE, AND VANDOTENA.

PALMAROLA. S. S. W. $\frac{1}{2}$ W. (*S. W.*) from *Cape Circello*, distant 17 miles, is the north end of the *Island of Palmarola*, which *Island* is nearly 2 miles in length, and narrow: several *rocks* above water lie scattered about it; two lying off its northern point, called *Galere*; five others at its western side, named the *Grottoes of Piatti*—these lie at the entrance of a small *cove*; and further southward is the *Faraglione di Pallanti*, close in-shore. There are other *rocks* off the southern end of this *Island*: one of them is above half a mile distant, having a channel between it and the *Island Palmarola*, with deep water. W. S. W. $\frac{1}{2}$ S. (*W. by S.*) from the southern *Point of Palmarola*, distant $1\frac{1}{2}$ mile, lie other *rocks* under water, which the mariner must be careful to avoid. The northern end of this *Island* is in latitude $40^{\circ} 57' 0''$ N., and longitude $12^{\circ} 52' 10''$ E.

PONZA, or *Pozca*, is of a semicircular form, with its convex side to the westward; it is about $3\frac{1}{4}$ miles in length, and narrow, but very high, particularly at the south end, which may be seen a great way off: it appears, in coming from the westward, like several islands, and lies to the S. eastward of *Palmarola*, from which it is distant 4 miles. On the eastern side of *Pozca* is a *roadstead*, where you may anchor; the *road* is tolerably large. Upon the larboard side, at the entrance, is an *island* called *Little Botte*, or *Testugina*, between which and *Pozca Point* is a passage with 12 and 10 fathoms water: on the same side further on is a small *fort*. North of this *fort* is a large *rock* above water; a little beyond this is the *mole*, where vessels may anchor in 3 and 4 fathoms, opposite to the *Town*. When you wish to anchor in this *road*, and are coming from the westward, look for *Testugina Island*, and run along at your discretion; you will then avoid a *shoal* said to lie in the fair-way, between *Fort Point* and the *Convent Rocks*: after you have rounded the said *rocks*, continue a little longer in the same course, and anchor with your starboard anchor in 9 or 10 fathoms water, carrying a fast on shore under the *fort*: galleys may anchor about you in less water, mud and weeds. Beyond the *fort* is the *mole* already mentioned, and a small *cove*, but with very little water: the *shoal* is on the northern side of the port, and near the *rocks* off *Convent Point*; from it the *Testugina* bears S. E. by E. (*S. E. $\frac{1}{2}$ S.*) nearly half a mile; the point of the *Mole* S. S. W. $\frac{1}{2}$ W. (*S. W.*), and a *battery* inland from *Convent Point* W. $\frac{1}{2}$ S. (*W. by N.*). The *shoal* is small, and has $2\frac{1}{2}$ fathoms over it, lying less than a quarter

of a mile from the outermost *Great Convent Rock*; between is a channel, with 5, 6, and 7 fathoms water, but the safest passage in will be between it and *Testugina*. To the N. westward is, in winter, a small rivulet; and in several places about this fort are subterranean caverns, baths, and other relics of Roman antiquity. Off the south-eastern point of the *Island* are the *Formiche Rocks*, some of which are above water: these lie at the distance of half a mile from the shore, and have deep water between them and the island; but the safest way will always be to go to the eastward of them, where there is no danger. Off the western side of *Ponza* are some rocks under water: these are about one mile from the middle of the island; the passage between *Ponza* and *Palmarola* has deep water, and no danger. Off the north end of *Ponza* is a round island called *Gabia*; having between them a narrow channel, fit for boats only. This bears from *Cape Circello* S. $\frac{1}{2}$ W. (*S. S. W.*), distant $16\frac{1}{2}$ miles; and from the north end of *Ponza* E. by S. (*E. S. E. $\frac{1}{4}$ S.*) 6 miles. *Ponza* south point is in latitude $40^{\circ} 52' 39''$ N., and longitude $12^{\circ} 57' 35''$ E.

ZANNONE. About $2\frac{1}{2}$ miles N. E. $\frac{1}{4}$ E. (*E. N. E. $\frac{1}{4}$ E.*) from *La Gabia*, lies the western part of *Zannone Island*: this is a small round island, about three-quarters of a mile long, and half a mile broad. Between *Zannone* and *Gabia* are several rocks above water, with passages between them; but directly south of *Zannone* is a nest of rocks under water, with 30 and 60 fathoms near them: they are distant from the south part of the island almost half a mile, having between them and the island 25 and 30 fathoms. *Zannone* is high, but not inhabited. The centre of this island is in latitude $40^{\circ} 57' 40''$ N., and longitude $13^{\circ} 3' 30''$ E.

S. by E. $\frac{1}{4}$ E. (*South*) from *Zannone*, distant $7\frac{1}{2}$ miles, and E. S. E. (*S. E. $\frac{1}{2}$ E.*) from the south point of *Ponza*, distant 7 miles, is *La Botte*, a low dangerous rock, with very deep water round it. It is in latitude $40^{\circ} 50' 20''$ N., and longitude $13^{\circ} 6' 10''$ E. In blowing weather the sea breaks over this rock heavily.

VANDOTENA ISLAND'S west point lies E. S. E. $\frac{1}{4}$ E. nearly (*S. E. by E.*), distant 14 miles from *La Botte*, and is called *Cape del Arco*. *Vandotena* is nearly 2 miles in length from S. W. to N. E., and one mile broad at its eastern part; off it lies a rocky islet, called *St. Stefano*, steep all round, and having between it and the island's eastern shore, 14, 15, 10, and 8 fathoms, the water decreasing as you approach the island: at its N. eastern end is the small *Fort of St. Nicolas*. A little way to the northward of *Vandotena* island is a rock under water, with some small ones that are visible near it: on this rock are only 3 fathoms water, and between it and the shore 4, 5, and 6; the depth soon increasing, to the northward, to 24, 50, 80, and 180 fathoms, which last depth is not 3 miles off the island. *Vandotena's* north point lies from *Cape Circello* S. E. by S. (*S. by E. $\frac{1}{4}$ E.*) distant 30 miles; from *Gaeta* S. by W. $\frac{1}{2}$ W. (*S. W. by S.*) 25 miles; and from *Zannone* S. E. by S. (*S. by E. $\frac{1}{4}$ E.*), distant 19 miles. It is in latitude $40^{\circ} 47' 55''$ N., and longitude $13^{\circ} 25' 40''$ E.

4. THE COAST OF NAPLES.

From Terracina to Cape Spartivento. From *Terracina* a low sandy shore extends $7\frac{1}{2}$ miles E. by S. (*E. S. E. $\frac{1}{4}$ S.*) to *Sperlonga*, with the *Lake of Fondi* inland: the land in the interior is woody, and you will pass the watch-tower of *Torra Nuovo* and *Fondi*, the latter standing at the eastern side of the entrance to the *Lake*. *Sperlonga* is a projecting point of land, and has, besides the *Village*, a watch-tower upon it: the land now becomes high, and continues so all the way to *Gaeta*, a distance of 8 miles from *Sperlonga*, and of 15 miles from *Terracina*: in your passage you will pass many watch-towers, and as you approach *Gaeta*, there is a little rock above water, near the shore, and at the entrance to the *Cala di Serpa*.

GAETA. This is a large and ancient town situated on a peninsula, and strongly fortified; containing a cathedral, several churches, and a population of 15,000. The streets are well-built and paved: the harbour remains nearly the same as in ancient times. The *Citadel*, built upon an eminence, commands the City: the neighbourhood around is very healthful, and the soil fertile. The sea abounds in fish, especially sturgeon, of the roes of which they make caviar. The *Mole of Gaeta* is in latitude $41^{\circ} 12' 20''$ N., and longitude $13^{\circ} 35' 30''$ E.

In coming from the westward, *Gaeta* may be known by the *Monte la Trinita*, *Trinity Mount*, to the westward of which is the large sandy cove of *La Serpa*: this mountain is steep and remarkable, being cleft from the top to the bottom; towards the sea, and at the foot of the mountain, is an *Oratory*, and near the cleft, a *Convent*. *Gaeta* is built on a steep point near the sea, and forms the larboard entrance

to the *Bay*: near its eastern extremity stand a *lighthouse* and *bastion*, and further in are several other *fortifications*. The place for anchoring galleys is near the *town*; but you should not go further in than half-way of the *walls* of the *town*, on account of several *rocks* under water, and because the water becomes shallow on a sudden: at the bottom of the *Bay* is a *river*, where you may get water. Ships generally anchor before *Gaeta*, but not in the middle of the *Bay*, because of the great depth of water, and that you have no shelter from the sea-winds there; but if you anchor near the *town*, you will be able to avoid the force of the sea: the most troublesome winds are from the N. E. to the East.

To the north-eastward of *Gaeta* is *Mola*, where formerly was a *mole*, and where vessels might have laid secure, but it is now destroyed: and although to the eastward of *Mola* there is still anchorage in 6, 7, and 10 fathoms, yet it is entirely unsheltered from the winds. Near *Mola* is *Castellone*, which is a large town. To the westward of *Castellone* is a *river*, affording good fresh water. From *Mola* a *sandy beach* extends to the eastward, having several *rivulets*, and inland, on an eminence, the remains of the *Castle Onorato*. A *rocky point* now rounds off for 2 miles, on which are the *watch-towers* of *Fanolo*, *Fica*, and *Sauri*: from hence a low *sandy shore* continues southward full 30 miles, or to the *Tower of Gaveta*, near *Baia*.

E. by N. (E. $\frac{1}{2}$ S.) from *Gaeta* are the *Tower* and *River of Garigliano*; upon the high land to the northward of which are the *fortifications* of *Trimenzu* and *Trajetto*. Nearly 5 miles to the S. E. (S. S. E. $\frac{1}{2}$ E.) of the *Tower of Garigliano* is the *Rivo de Cascano*, on the southern bank of which stands the *Tower of S. Limato*; a little beyond which is the *Village of Vagnola*. Between these, inland, is *Mount Massico*. You now run on in the above direction for 3 leagues, when you will arrive at the *River* and *Castle Volturno*: in this space you will pass the *Tower of Rocca*, the *Village Mondragone*, and the *River Riccia*. About a mile to the southward of the entrance to the *Volturno* is another *Tower*, having some sunken *rocks* stretching out to seaward before it. You will now come to the *River Lagni* and the *Pantano Wood*; further on, and at the distance of $7\frac{1}{2}$ miles from *Volturno*, are the *Tower* and *Town of Patria*; $3\frac{1}{2}$ miles beyond which is the entrance to the *Lake Licola*; and a further continuance for $2\frac{1}{2}$ miles more, brings you to the *Tower of Gaveta*. The land here assumes an elevated appearance, and the coast becomes steep and rocky. About a mile to the southward of the *Tower of Gaveta* is *St. Martin's Rock*, between which and the land is a passage for small vessels. From *St. Martin's Rock* a S. E. by S. (S. by E. $\frac{1}{2}$ E.) course will carry you to *Cape Fumo*, and thence the land turns E. S. E. $\frac{1}{2}$ E. (S. E. by E.) to *Point Miseno*, which is the S. Western *Point* of the entrance to *Pozzuoli Bay*.

NAPLES. The *Gulf of Naples* lies between the *Islands of Ischia* and *Procida* to the west, and *Capri* and *Point Campanella* to the eastward: it is very large, and easily known by the *high islands* before mentioned, and *Mount Vesuvius*, which is at the bottom of the *Gulf*, and perpetually burning; so that in the night you will easily perceive the fire, and in day a thick smoke issuing from it. At the bottom of the *Gulf*, to the northward, is the *City of Naples*.

ISCHIA ISLAND lies at the entrance to the *Gulf of Naples* on the north-western side; it is large, high, and steep, particularly to the S. W., having *Mount Epomeo*, a *sugar-loaf hill*, in its middle, with *light spots* about it, by which you may recognise it. The circumference of this island is nearly 16 miles, being about $5\frac{1}{2}$ miles long from E. to W., and 3 miles broad: there is a *tower* near the N. W. point; and on the other side of the point, in a *sandy bay*, stands the small *Town of Foria*, where galleys may anchor, sheltered from the S. S. W., E., and N. E. winds; but you must beware of a *rock* under water, stretching out two cables' length from shore. On the northern point of this Bay is a large square tower, by which it may be known. To the N. eastward is the *Castle of Ischia*, built upon a *rock*, which is joined to the land by a *stone bridge*, 200 fathoms long; this castle is high; inaccessible, and fortified on all sides. Some *watch-towers* and a small town stand near the foot of the bridge, on both sides of which galleys may anchor; and between the castle and town, to the south of the bridge, are 3, 4, and 5 fathoms water, oozy ground. Carry your fasts on shore towards the town; you may also anchor, according to the winds, to the southward of the bridge; but be careful of the *rocks* under water, lying contiguous to the *Castle*, and also of some on the opposite side towards the *Island*, over against a point; so that you may pass between both, to anchor near the bridge. Half a league southward of the *Castle* is a high point, *Capo D'Arco*, off which lie some shoals, which must be carefully avoided.

PROCIDA. Near to the *Island of Ischia*, and between it and the main land, lies the *Island of Procida*, of irregular form, and about 2½ miles in length: the town occupies a considerable portion of the land, and the rest is covered with vines, fig, and orange-trees. Its shores have several sandy coves, and there are many handsome buildings upon the island. The town is well fortified, and its point to the north-eastward is high and steep.

VIVARA is a small narrow island, about 3 quarters of a mile long, and lies off the south-west end of *Procida*; it is high, and has a watch-tower upon it. Between *Vivara* and *Ischia* is a good passage with deep water, sailing near to the *Castle*, on account of a small ledge of rocks under water, lying westward from the small *Island* about 600 fathoms' distance, upon which are only from 4 to 6 fathoms water: you may go between these rocks and the little island, ranging nearer the island, and having 5, 6, and 7 fathoms water; but the safest way is to sail along one-third of the distance between the *Castle* and *Vivara*, and you need fear nothing. The N. Point of *Ischia*, called *Caruso*, lies S. S. E. (S. ½ E.) from *Gaeta*, distant 29 miles, and from *Mount Circello* S. E. ½ E. (S. E. by S.), distant 43 miles.

From *Vivara* to the N. W. Point of *Procida* the distance is about 1½ mile, and between lies a small Bay, where you may lie sheltered from N. E., South, and S. W. winds, in 4 or 5 fathoms, with a bottom of ouze and weeds: but care must be taken of several rocks under water, off *Point della Serra*, some of which are 4 cables off. At the south end of *Procida* are several sandy creeks, where you may anchor with W. N. W. and N. winds: this shore is steep-to, and you may run along it with safety. The distance from the N. W. to the N. E. point of this island is about 1½ mile, the land between lying in a kind of Bay, where is a landing-place, and you may anchor in 3, 4, 5, and 6 fathoms, ouzy ground, with weeds: several large and ancient houses stand on the shore; there is also a village, and near it a little church. At the N. E. point, which is high and steep towards the sea, is the *Town of Procida*, being fortified after the ancient manner; and below it are several other villages, this island being very populous. At the foot of the *Town of Procida*, at a place called *Aleme Point*, are some rocks above water; they are 2 cables' length from shore, and have 3 fathoms close to them. When you wish to anchor under the town, do not come within half a mile of the beach, because the water is shallow: you lie here exposed to the N. and N. E. winds; but with the winds between S. S. E. and S. W., you are safe. Off *Chiuppato Point*, which is the northern extremity of the island, are some rocks under water; and off the N. W. point of the island is a reef, extending a good way off, which must have a berth in passing.

POINT MISENO. Two miles and three-quarters E. by N. (E. ½ S.) from the eastern point of *Procida*, is the *Point of Miseno*, the northern boundary of the *Bay of Naples*; this is a long high point, having two watch-towers upon it, and near them a large house. At the extremity of the point is a rock above water; there is deep water near it. Formerly there was a considerable town here, the ruins of which are still visible. *Cape Miseno* is in latitude 40° 46' 20" N., and longitude 14° 4' 55" E. Northward from *Cape Miseno* is a deep Bay, where formerly was a good harbour, called *Mare Morto*; galleys may still anchor in it: on the starboard side is a long ridge of rocks, resembling a work of art; these are above water, but at their end are several under water, running out a full cable's length to the S. S. E. ½ E. (S. by E.). On the larboard side are five brick pillars, being part of a Roman building; they are level with the water: on the side stands a fisherman's hut, and above it a Chapel. At the further end of this harbour you have a large round sheet of water, not above 4 or 5 feet deep: beyond is a great lake, where formerly stood a town; this lake has a communication with the sea, by a sluice at the bottom of the harbour. When you wish to enter the *Port of Mare Morto*, get the mouth of it well open; then sail close to the pillars before mentioned, and you will have 4 or 5 fathoms water: you will see on your starboard the ruins of several houses under water, which have been swallowed up by earthquakes; these you should keep clear of. Continue on to the end of the harbour, and anchor a little within the fisherman's house on your larboard side, in 3 and 4 fathoms, the ground ouze and weeds; but pass not a little mountain of rocks, for the water becomes suddenly shallow; nor come within a cable's length of this shore, because of the many houses which you will see under water: when you are well within the port, you are safe from all winds. With a fresh gale at S. S. E. or E. there is a great swell, and you will not be able to go out of the port, because the sea breaks all over the entrance.

BAJA. One mile and a half northward of *Mare Morto Point* is the *Castle of*

Baja, or *Baia*, built upon a steep point, at the foot of which is a rock level with the water, and upon it stands a *battery*; between it and the land is a passage for boats only. From hence, about one mile N. by W. (*N. $\frac{1}{2}$ E.*), is a large high point, called the *Point Baia*; the land between is hollow, and near the middle, at the end of a low point, is a *battery*, over against which, a cable's length from shore, are some rocks, with not above 4 feet upon them; there are likewise several rocks under water all round the *battery*, but especially towards the *Point Baia*. The anchoring place in the *Roadstead of Baia* is between the two *batteries*, which are level with the water's edge, at about 3 cables' length from the shore: the ground is ouze and mud, and the depth 5, 6, and 7 fathoms; but your first anchor must be, according to the wind, in 10 or 12 fathoms: always avoid the *Point Baia*, on account of the ruins under water; when you are thus anchored, carry fasts on shore towards the *Castle of Baia*. But note—there is a rock under water, between a house which is below the *Castle of Baia*, and the anchoring place, which will damage your cables. To avoid the dangers on both sides, you should lie with your stern towards the *Town of Pozzuoli*, and your head towards two pillars which you will see on a sloping side of the mountain, above a temple in the bottom of this shore. There is another near the sea, built of bricks, formerly dedicated to *Mercury*, and near the *Point Baia* stand the ruins of one, dedicated to *Venus*: near the middlemost, or brick-built temple is a large one, partly in ruins, in which the voice circulates along the wall, similar to the whispering gallery at St. Paul's, in London. On the top of *Point Baia* is a large inscription on white marble; and towards the sea are several subterraneous passages, cut out of the solid rock: they run a great way into the mountain, and lead to several baths of mineral waters and other subterraneous apartments. Here also is, on one side, a bath of hot water, called the *Bath of the Sun*, and close to it is another, extremely cold, called the *Bath of the Moon*; near *Baia Castle* are other baths, said to be those formerly of the *Cumean Sibyl*.

POZZUOLI. E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ N.*), distant $1\frac{1}{4}$ mile from *Baia*, lies *Pozzuoli*; the land between both forms a deep Bay, but dangerous, from the ruins of houses and towers, the tops of which are in some places almost level with the water, and lie a great way from shore, having 7, 8, and 10 fathoms close to them. Between the *Point Baia* and these ruins the coast is sandy: and in-shore are the *Lakes of Lucrino* and *Averno*, having very deep water in them; but these lakes have no known communication with the sea. *Pozzuoli* is now a small town, situated upon a low point by the side of the sea, rendered famous by the magnificent structures built there by the Romans: the mariner will see the pillars or ruins of the *Bridge of Caligula*, which formerly stretched from hence to *Baia*. Both ships and gallees now take shelter opposite to these pillars, by fastening hawsers to them, in 6 and 7 fathoms, safe riding; there are from 4 to 7 fathoms close to these pillars, the water deepening the farther you go from the town. To the northward of them is a sandy beach, where you will have from 4 to 8 fathoms, 2 cables' length from the shore, the ground mud and weeds; but do not go too near the shore, as the water shallows fast: the out-winds cause a great swell of the sea. There is a volcanic mountain continually burning above the *Town of Pozzuoli*, where the inhabitants get brimstone; and close to it is the *Wonderful Pool*. A small lighthouse is now erected on *Point Giulio*, to the N. W. of *Pozzuoli*.

NISITA. From *Cape Miseno* to the *Isle of Nisita* the course is nearly E. N. E. (*E. $\frac{1}{2}$ N.*), and the distance $3\frac{1}{4}$ miles; and from *Pozzuoli* to *Nisita* S. E. by E. (*S. E. $\frac{1}{2}$ S.*) $2\frac{1}{4}$ miles. Between *Pozzuoli* and this island is a wide Bay, with a sandy shore, where, with land-winds, you may anchor in cases of emergency only, for it is covered with rocks above and under water; but the shore is a very fine plain, with several ancient buildings and baths upon it. *Nisita*, the *Quarantine Island*, is high, and surrounded with trees, about a mile in circumference, and 400 fathoms distant from the shore: a large fortification is built upon the highest part of the *Island*, and to the S. westward is a small creek. To the northward of the island are the remains of a small mole, part of it being under water; and midway between the island and land is a long steep rock, having an infirmary upon it: over against this, in the *Island of Nisita*, are some houses near the sea, and a small quay; but you cannot pass between *Nisita* and the *Lazaretto Rock*, unless in boats. To the eastward of *Nisita* is the high *Point of Gajola*, and a small *Island* at the end of it: between is no passage unless for boats; but upon this small island are the ruins of a tower, and towards the coast a Temple, called *Virgil's School*. From hence the coast is high, and scattered over with many large houses: others are level with or under the

water, and several rocks run out a good way into the sea: you must therefore always keep a full mile off the shore.

Here, at a point of land, known by a very large white house on its summit, you will, following the coast, first discover the *City of Naples*; but you must take great care of the dangers off this point, there being pillars, houses, and towers swallowed up, and forming dangerous objects for a vessel to encounter with: give, therefore, to this point a good berth, which having rounded, steer $1\frac{1}{2}$ mile to *Posalipo Point*, $2\frac{1}{2}$ miles N. E. by E. (*E. N. E. $\frac{1}{2}$ E.*) from which you will see the *Castle del Ovo*, built upon a rock. Between *Posalipo Point* and this *Castle* the coast bends inwards; and almost half-way between both is *Mergillena Point*, covered with palaces and magnificent buildings; from hence to *Naples* is a continuation of elegant structures and noble houses, with fine marble fountains before them, and a long row of trees, composing one of the finest walks about the *City of Naples*. In the middle of the landing place is *St. Barnard's Chapel*, surrounded nearly by the sea; and at the end of the beach to the westward, is the entrance to the *Grotto of Pozzuoli*, cut through a high mountain, which has a village and a forest of trees upon it.

THE CITY OF NAPLES is large, standing in a fine plain near the sea, and filled with churches, palaces, forts, and castles, especially towards the sea; you will see one upon a rising ground above the town, called the *Fort or Castle of St. Elmo*, in latitude $40^{\circ} 50' 12''$ N., and longitude $14^{\circ} 7' 45''$ E. Near it is a *Carthusian Convent*; and by the sea-side the *Castle del Ovo*, which is a considerable fortification, and returns the salute which foreigners make to the town: to the westward is the palace, and adjoining it the arsenal, where is a basin capable of holding 10 or 12 galleys, defended by an ancient tower. There is a mole before the town, built almost in form of the Roman letter L, upon the elbow of which stands a high brick tower or lighthouse, situated in latitude $40^{\circ} 50' 12''$ N., and longitude $14^{\circ} 15' 45''$ E.: this is defended by a battery; and at the point of the mole is a small fort, near which is a gun and bomb battery. You may anchor within the mole, with moderate sized vessels, in 3 and 4 fathoms, the ground ouze and weeds; but only small vessels can approach the town: this anchorage is safe, and secured from all winds; but North and N. E. winds come over the land, and oftentimes blow violently, and out-winds occasion a great swell. You may anchor between *Del Ovo Castle* and *St. Vincenzo*, or the *Tower of the Basin*, in 6 or 7 fathoms; but you will be much exposed, and the ground is rocky, neither is it better between the basin and the mole. Small vessels may anchor at the head of the mole; but men-of-war anchor about a mile off, in from 30 to 35 fathoms water, the lighthouse bearing N. N. W. by compass. There is a great depth of water all over the *Gulf of Naples*.

Nearly E. S. E. (*S. E. $\frac{1}{2}$ E.*) from the Mole, distant 4 miles, is the *Town of Portici*, and 2 miles further on stands the *Torre del Greco*, beyond which, $2\frac{1}{2}$ miles, is *Cape Bruno* bearing from the Mole S. E. $\frac{1}{2}$ E. (*S. E. $\frac{1}{2}$ S.*), distant nearly $8\frac{1}{2}$ miles. The coast is generally smooth and low, with several fine sandy beaches; behind is the celebrated *Mount Vesuvius*, standing in the midst of a large plain, about 3 miles inland: this mountain continually casts out fire and smoke, and may be discerned a long way off. Near *Cape Bruno* is a rock under water, and about a mile to the S. eastward of the Cape is another; both these are at a little distance from the shore. The land now turns to the E. N. E. (*E. $\frac{1}{2}$ N.*) toward *Torre del Annunciata*, having some watch-towers on the coast; it then runs S. S. E. (*S. $\frac{1}{2}$ E.*) about 4 miles to *Castel a Mare*. In this space, about midway, lies the *Island of Revigliano*, having a small fortress upon it, and being opposite to the *Foce del Sarno*; between it and the shore is a passage nearly half a mile wide, with 3 and 4 fathoms water.

CASTEL A MARE. The *Town of Castel a Mare* bears from the *Lighthouse of Naples* S. E. $\frac{1}{2}$ E. (*S. E. by S.*), distant $13\frac{1}{2}$ miles; it is built at the foot of a mountain, and near the sea; to the westward are 7 and 8 fathoms water about one mile from the landing-place. Before the *Town of Castel a Mare* is a small mole, resembling a hook, which runs out N. E. $\frac{1}{2}$ E. (*E. N. E.*), where a few barks may lie; in fine weather you may anchor at the mole-head, or outside of this point in 5 fathoms; some galleys carry their masts on shore, where are anchors and rings. At the S. W. end of the town, near a tower on the sea-side, is a good spring: this place is fit for galleys in summer, but they must not lie here in the night, for fear of the sea-winds. Outside of the Mole, to the W. S. W. (*W. $\frac{1}{2}$ S.*), is a Convent upon a rocky point, where a madrague, or tunny-fishery, is kept. From *Castel a Mare* to *Cape Orlando* the course and distance are W. S. W. $\frac{1}{2}$ W. (*W. $\frac{1}{2}$ N.*), $1\frac{1}{2}$ mile; a rocky islet lies very near the Cape: this part must always have a good berth given to it. S. S. W. (*S. W. $\frac{1}{2}$ S.*), $1\frac{1}{2}$ mile from

the *Cape*, is the *Town of Vico*, the coast between being high and steep: in this space are some rocks under water, called the *Secca Calvarusa*. *Vico* is a small town close to the sea, about a mile and a half to the westward of which is a large point stretching out, called *Egna Point*, with a watch-tower upon it, and several others near: you may anchor between this point and *Vico* in 8 and 10 fathoms, mud and weeds; but this is only proper for land-winds that are from the South and S. E.

SORRENTO. Round the above point to the southward, are the *Villages of Meta and Carollo*; the land then bends westward to the *Town of Sorrento*: N. W. by N. (N. by W. $\frac{1}{2}$ W.), about one mile from this, is the *Point of Sorrento*, which has also a tower upon it. The coast is steep and smooth at top, but hollowed into subterraneous cells, and much celebrated for its antiquities: eastward is the *Plain of Sorrento*. The *Town of Sorrento* is situated on the slope of a mountain between *Vico* and *Massa*, by which it is sheltered: it is surrounded by gardens and hills, having fruit-trees of various kinds, among which the orange and lemon are most predominant. In its neighbourhood are many ruins; water may be had of excellent quality, and there are several baths. The inhabitants are chiefly seamen and fishermen; and the women superintend the breed of silk-worms, and are employed in weaving silk. It has two small forts to defend the anchorage, and you may anchor before the town in 7 and 8 fathoms, the ground mud and weeds.

From *Cape Sorrento* to *Cape Campanella* the land is very irregular, the distance being $4\frac{1}{2}$ miles: it is generally high and steep, and has several towers. A little to the S. westward of *Cape Sorrento* is a kind of cove, where vessels sometimes may stop, between it and *Point Puolo*: the coast then bends inward to the *Village of Massa*, near which are some rocks: here stands an ancient temple, now converted into the Church of *St. Peter*. About equidistant from *Cape Puolo* and *Cape Corno*, or *Massa*, is a rock above water, called *Vervece*, between which and the shore is a good passage with deep water. S. W. by S. (S. S. W. $\frac{1}{2}$ S.) from *Cape Corno*, distant $1\frac{1}{2}$ mile, is *Point Barcola*, upon which also is a tower: the land now bends S. $\frac{1}{2}$ E. (S. by W.) to *Cape Campanella*, the S. eastern point of the *Gulf of Naples*.

Cape Campanella is large, and lies in latitude $40^{\circ} 33' 15''$ N., and longitude $14^{\circ} 19' 30''$ E.: upon it stands a tower, and near it are two rocks above water. From *Cape Campanella* to the N. E. Point of *Capri Island* the course is W. S. W. $\frac{1}{2}$ W. (W. $\frac{1}{2}$ N.), and the distance one league nearly.

THE ISLAND OF CAPRI is $3\frac{1}{2}$ miles long, and $1\frac{1}{2}$ mile broad at its western part, being high at both ends: near the N. E. end is a Bay with a sandy beach, along which are several fishermen's houses of a peculiar make. Above the beach, between two rising grounds, is the *Town of Capri*, and near it an ancient castle: upon the eastern point of the island is an antique building, said to be the Sepulchre of *Tiberius Caesar*. In cases of necessity, you may anchor with S. and S. S. W. winds before the Bay above mentioned, at the N. E. end of the island, within a small cannon-shot of the landing-place, in 4 or 5 fathoms, mud and weeds; but when at a little distance from the shore, there are from 15 to 25 fathoms. Close to the island are some rocks, both above and under water; but you may pass all round at a little distance without any danger, except the south-west point, from which a reef extends southward a considerable way into the sea. The southern shores of the island are lofty, and *Mount Soluro* may be seen a great way off. There is a good channel between *Cape Campanella* and this island, having 15 and 20 fathoms near the Cape, in the middle 60, 70, and 80, and near *Capri* 14 and 15 fathoms; but about midway is a sunken rock, which the mariner must be careful to avoid, going on either side of it, as he thinks proper, the water all round being deep.

Capri has several springs of good water, and the valley which separates the high western and eastern lands is covered with fig, orange, lemon, almond, olive, and other trees, which form a remarkable contrast to the rocky precipices on each side. The population is estimated at 1500, and the climate is a perpetual spring. It is noted for the great quantities of quails that frequent the island about the month of March, which are caught in nets, and exported to Naples, &c.

In sailing from the westward for the *Gulf of Naples*, it is usual to steer for the *Island of Ischia*, which is lofty towards the centre, but slopes down on each side; when the weather is clear, you will discover it 60 miles off. There is a good channel between *Ischia* and *Procida*, and also between *Procida* and *Cape Miseno*: that between *Procida* and *Miseno* is full a mile wide, and has not less than 7 fathoms within it; but you must keep mid-channel, because the shore on each side is rocky: your course through will be S. E. by E. (S. E. $\frac{1}{2}$ S.). But if you proceed through,

between *Ischia* and *Procida*, you should take a S. E. course (S. S. E. $\frac{1}{2}$ E.), taking care to keep nearer to *Ischia* than to the *Procida* side.

When bound into the *Bay of Naples*, after having the *Bay* quite open, bring *Mount Vesuvius*, if it can be seen, to bear N. E. $\frac{1}{2}$ N. (N. E. by E.), and then steer directly for it; or else keep it a little on the starboard bow, which cannot fail to carry you in, until you get a fair view of the *City of Naples*: when you have arrived thus far, steer directly towards the *City*, and anchor. If coming into the *Bay* by night, steer on *Vesuvius* until you get sight of the light on the *Head of the Mole*; bring that light to bear N. N. W. $\frac{1}{2}$ W. by compass, or N. W. by N., and run on for it: keep your lead going, and anchor wherever you chuse, in from 20 to 14 fathoms. There is no danger in going into this *Bay*, and consequently a Pilot will not be necessary.

According to Mr. W. Smith, the best anchorage is with *Fort St. Elmo* on, or a little open, to the westward of the lighthouse on the *Mole-head*, and *Point Possilipo* Point a sail's breadth open to the southward of *Castell' Ovo*, in from 18 to 14 fathoms, mud and clay. By observing these marks you will be clear, and to the inside of the anchors which have been lost here by former vessels.

There is no regular tide, but a rise and fall of water which attends S. westerly gales. There is a strong outset round the *Mole-head*, so that the nearer ships lie to the *Mole*, the easier they will ride during winds from that quarter.

Wood and water may be procured here, the water being had from the *Mole* with pipes, laid down for that purpose. Refreshments of all kinds are in great plenty, and at a reasonable rate. The trade is very considerable, but chiefly carried on by foreign vessels, the Neapolitans having very little mercantile shipping of their own; and prodigious quantities of dried fish are imported here from Newfoundland, by English vessels. In fine weather you may land in any part of the *Bay*; but with bad and blowing weather, there is no safe landing any where but at the *Mole*. No salutes are necessary, and the British officers are commonly treated in the most friendly manner.

THE GULF OF SALERNO. This extensive *Gulf* may be said to commence from the northward, at the *Cape of Campanella*, and terminate on the south at the *Point and Tower of Licosa*; these points bear from each other S. E. $\frac{1}{2}$ E. and N. W. $\frac{1}{2}$ W. (about S. E. $\frac{1}{2}$ S. and N. W. $\frac{1}{2}$ N.), distant 32 miles.

To the eastward of *Cape Campanella* is a projection of the land, called *Point Mont Alto*: it runs into the sea, and is high. Between these is *Creta Cove*, having deep water. Further east are three small islands lying off shore, and called *Li Galli*, *Longa*, and *Rotunda*; the outermost is the largest: before you come to these is the *Vitara Rock*, having 33 fathoms between it and the islands, and from 16 to 6 between it and the main land. From *Point Mont Alto* the coast bends E. N. E. $\frac{1}{2}$ N. (E. by N.), all high land, having several watch-towers upon it, and some towns and villages. Eight miles from *Point Mont Alto* is the *Town of Positano*, from whence a S. E. (S. S. E. $\frac{1}{2}$ E.) course will clear the *Point of Sottile*: here stands the *Tower of Scaricatore*, and beyond it, *La Torricila*; while inland are the *Towns of Vettica* and *Prajano*, backed by very high mountains. E. by N. (E. $\frac{1}{2}$ S.) from *Prajano*, distant nearly 3 miles, is *Point di Conca*, jutting out considerably to the sea; further on, N. E. $\frac{1}{2}$ E. (N. E. by E. $\frac{1}{2}$ E.) from *Point Conca*, about 2 miles, is *Cape d'Almafi*, to the westward of which is the *Town of Almafi*, where the use of the compass for the purposes of navigation is said first to have been discovered: it has no harbour, but vessels may lie sheltered from East and N. E. winds in the open sea, and under the high land. Leaving *Almafi*, you will pass the *Towns of Minuri* and *Majuri*, and, the land now bending south-eastward for $1\frac{1}{2}$ mile, reach the *Cape D'Orso*, a mile to the eastward of which is *Cape Tumulo*. From *Cape Tumulo*, upon which stands a watch-tower, and near the point of the *Cape* some rocks above water, to the *Mole of Salerno*, the course is N. E. (E. N. E. $\frac{1}{2}$ N.), full 3 miles; the coast is rocky all the way, and you will pass *Erchie*, *Citara*, and the *Town of Vietri*, before which vessels may occasionally anchor in 4, 5, or 7 fathoms: fronting this roadstead are some rocky islets, called the *Brothers*. You will now arrive at *Salerno*.

SALERNO. This is an ancient town, and lies about one mile to the eastward of *Vietri*: it is situated in a fine sandy plain, surrounded by a range of well-cultivated hills, and contains a population of 10,000. The houses stretch along the shore, having a white appearance, and are backed by a castle in ruins, situated on an eminence. The houses are high, but the streets are irregular, narrow, and paved with a sort of lava: there are many churches, and a massy cathedral. There is a small

mole before the *town*, calculated to protect the smaller vessels, and defended by a *castle*; being a place formerly much frequented, and carrying on a very considerable commerce. But although the *town* has a good *harbour*, it is now much neglected: there is good riding before a *sandy beach*, with North, N. E., and Easterly winds, but with all other winds it will be found dangerous. *Salerno* is in latitude $40^{\circ} 40' 0''$ N., and longitude $14^{\circ} 45' 20''$ E.

From *Salerno Mole* to *Cape Licosa*, the eastern point of the *Gulf*, the course is S. by E. (*S. $\frac{1}{2}$ W.*), and the distance 26 miles, the shore being low and sandy, and without any harbour, but up the country it becomes mountainous: within this space are the *Towns of Ancellara, St. Leonardo, Aversana, Pestum, and Agropoli*; besides these there are numerous *towers* and small *rivers*, as shown upon the Chart. *Pestum* is an ancient town, the walls of which still remain, and are more than 2 miles in circumference; in the vicinity are the remnants of several temples and public edifices. A small river runs by its southern side, and about a league inland is the *Town of Capaccio*; further to the southward, and equally in-shore, is the *Town of Ogliastro*, from whence a *river* descends to *Agropoli*.

Agropoli is now a small town, situated at the entrance of a *river* of the same name, and at the foot of the high lands by which it is surrounded on the south and east: before this place small vessels frequently anchor. From *Agropoli* to *Cape Licosa* the land becomes considerably elevated, the shores being steep-to and rocky, with a good depth of water all the way. On *Agropoli Point*, to the S. eastward of the *town*, is a *tower*, and some *rocks* lying off it: midway between this *tower* and *Licosa Point* is the *Tower of Pagliarolo*, and further, the *Castle of Abate*; half-way between which and *Cape Licosa*, are some *rocks* under water: there are also some *rocks* lying off the point of the *Cape*.

Cape Licosa is in latitude $40^{\circ} 13' 50''$ N., and in longitude $14^{\circ} 53' 0''$ E. It is the southern extremity of the *Gulf of Salerno*, and forms the western extent of a range of lofty hills, which run from thence to the south-eastward. Upon its point there is a *tower*, and from it runs a *rocky shoal*, full one-quarter of a mile out; upon this *shoal* is the *Island Piana*, between which and the *Cape* there is no passage. About $1\frac{1}{2}$ mile from the point of the *Cape* there is a *sandbank*, reaching from N. to S. nearly 3 miles, and in breadth about half a mile: on the northern part of this *bank* are 4, 5, and 6 fathoms, on its southern part 9 and 10 fathoms, and on the intermediate parts from 6 to 11 fathoms: outside of this, in the extent of 4 miles, are three other *shoals*; but on all of these is a still greater depth of water; and on the inner one not less than 12 fathoms. These are usually called the *Banks of Licosa*. Between the *Cape* and the inner *shoal* the fair-way is a mile broad, and has not less than 17 fathoms water; therefore the mariner, in passing, has only to give the *Cape* a berth of about a mile, and there will be no danger whatever. *Cape Licosa* bears from the east end of the *Island of Capri* S. E. by E. (*S. E. $\frac{1}{2}$ S.*), distant 34 miles.

From *Cape Licosa* the land runs S. E. $\frac{1}{2}$ E. (*S. E. $\frac{1}{2}$ E.*) to *Point Acciorolo*, distant 7 miles, passing several *towers*, but having no place of anchorage. E. by S. (*E. S. E. $\frac{1}{2}$ S.*), 2 miles from *Acciorolo*, is *Torre della Punta*: within this space some *rocky shoals* lie off the land, and from the point a reef extends southward half a mile. Vessels coasting along must be careful to give this part a good berth. Nearly $2\frac{1}{2}$ miles from *Della Punta* is the *Tower of Dimonella*, $4\frac{1}{2}$ miles from which is the *Tower of Porticella*, a little inland; behind is the *Town of Ascea*, 2 miles to the northward of which is the *Castel a Mare*. Between *Punta* and *Castel a Mare* the coast forms circularly a kind of *Bay*, but there is no safe harbour or anchorage: about midway between these points is the *River St. Venere*. From the *Point* and *Tower of Porticella* a S. E. $\frac{1}{2}$ S. (*S. S. E.*) course for 7 miles will carry you to the *Point of Palinuro*. Between these two points the coast bends inward, and has the *Tower of Aqua Bianca*, the *Village of Pisciotta*, the *Tomb of Palinurus*, and other buildings standing on the sea-side: behind these is the *Town of Centola*, on the banks of a river 2 miles inland. In all this space there is no safe anchorage. *Port Palinuro* is in latitude $39^{\circ} 59' 10''$ N., and longitude $15^{\circ} 15' 5''$ E. Here vessels may anchor in 7 or 8 fathoms, sheltered from the south and east, but open to all winds from the south round to the N. W. There are several *towers* built on *Cape Palinuro*, and the land in the interior rises up very high. To the southward is *Port Spartimento*, where small vessels may anchor at the entrance of the *River Laonbro*: here stands the little *Village Molpa*. About half a mile to the eastward is the *River Mingardo dello Trivento*, having the *Tower dell Arco* on its eastern bank; from thence the coast winds S. E. by E. (*S. E. $\frac{1}{2}$ S.*) for one league, having several *watch-towers* on the way: and at the

distance of about $4\frac{1}{2}$ miles from *Spartimento*, is a *shoal* of from 3 to 6 fathoms: there is a passage between it and the main, which small vessels may run over without danger. A rocky coast now turns E. by S. (*E. S. E. $\frac{1}{2}$ S.*) to *Falconara Tower*, a little beyond which is *Point Infreschi*, upon which is a *tower*. On the high lands within this latter space are the *Towns of Camerota and Lentiscosa*, and behind, the lofty *Mountains of Bulgaria*.

GULF OF POLICASTRO. This *Gulf* has several small *ports*, or places for anchorage, where the riding is good, and sheltered from most winds. The *Town of Policastro* lies at the northern part of the *Gulf*, and has a small *river* near it, on each side. There are also several anchoring places on the eastern side of the *Gulf* from *Policastro* to *Cirella Point*, particularly at *Sapri Arco*; and behind, or to the southward of the *Island of Dino*, there are some *rocky banks* lying off the shore, but none at above the distance of half a mile; therefore, in running along, keep at that distance, and you will clear all danger. From abreast of *Port Infreschi* a N. E. $\frac{1}{2}$ E. (*E. N. E.*) course will take you to *Point Morice*, upon which stands the *Tower of Spinosa*, a distance of 4 miles; and a similar course for 3 miles more, will carry you before the *Town of Policastro*; this is now a place of very little consequence, with only a population of about 400 persons, chiefly employed in the fisheries. It is situated in latitude $40^{\circ} 2' 0''$ N., and longitude $15^{\circ} 33' 0''$ E.: there is anchorage before it in from 12 to 20 fathoms, the ground being a stiff clay, but quite exposed to S. W. and southerly winds.

From *Policastro*, a *sandy shore* extends E. by S. (*E. S. E. $\frac{1}{2}$ S.*) to *Sapri*, where there is anchorage for small vessels in a sort of *cove*, but open to the southward. *Sapri* is distant from *Policastro* 5 miles. The land now runs S. E. by S. (*S. S. E. $\frac{1}{2}$ S.*) 14 miles, to the *Island Dino*; in this space are many *towers*, and the *Towns of Aquafredda, Maratea, Castro Cuccaro*, and other villages. Seven miles and a quarter from *Sapri* there is a little *island*, called *Janni*, lying near the shore, behind which is a little *cove*, with some *shoals* in it; it therefore is named *Shoal Cove*. Two leagues from this is *Dino Island*; upon this is a *tower*: there is a narrow channel between the *island* and the main, and inland, opposite to the *island*, is a *castle*. Vessels may occasionally anchor to the N. W. of this *island*, or in the little *Cove of Casaletto* to the southward. To the S. S. Westward of *Dino* the land runs round a *point*, upon which are some *watch-towers*, and behind them the *Village of Casaletto*: a low *sandy shore* now commences, and continues nearly 8 miles, to *Cirella*. About half a mile to the southward of *Cirella* is an *island* of that name, upon which is an old *tower*: there is anchorage off its N. E. *point* for small vessels in cases of emergency.

From *Cirella* the coast bends southerly 13 leagues towards *Cape Suvero*, having numerous *rivers, towers, towns*, and *villages* on the shore; but no port or safe anchorage, except with off-shore winds. The principal towns in this route, and their distances from *Cirella*, are *Diamante*, distant one mile; *Belvidere*, 4 miles; *Cetraro*, 9 miles; *Gaudia*, 12 miles; *Fuscaldo*, $14\frac{1}{2}$ miles; *Paola*, 17 miles; *S. Lucido*, $19\frac{1}{2}$ miles; *Falconara*, which is somewhat inland, 21 miles; *Belmonte*, $25\frac{1}{2}$ miles; *Aman-tea*, 27 miles. Between these two latter towns, and at a little distance from the shore, are the two *Rocks of Isca*; $2\frac{1}{2}$ miles beyond which are two other *rocky islets*, called *Formicola* and *Panicello*. Several *towers* now present themselves, standing on different points of the land, off one of which, 4 miles to the southward of *Panicello*, is the *Rock Caputa*, from whence the *Cape of Suvero* is only 5 miles distant. You now arrive at the *Gulf of Euphemia*.

GULF OF ST. EUPHEMIA. This *Gulf* is bounded by *Cape Suvero* on the north, upon which stands a *tower*, and by *Cape Vaticano* on the south: the former is in latitude $39^{\circ} 2' 55''$ N., and longitude $16^{\circ} 8' 40''$ E.; the latter is in latitude $38^{\circ} 36' 30''$ N., and in longitude $15^{\circ} 52' 0''$ E. These *Capes* bear from each other N. N. E. $\frac{1}{2}$ E., and S. S. W. $\frac{1}{2}$ W. (*N. E. and S. W.*), distant 29 miles; the *Gulf* or *Bay* running to the eastward, and having a *sandy beach* of low land next the sea. About 5 miles from *Cape Suvero*, E. by N. (*E. $\frac{1}{2}$ S.*), is the *Town of St. Euphemia*, standing nearly $2\frac{1}{2}$ miles inland: there is a little *river* runs up towards the town, at the mouth of which is a *bastion*. From thence a *sandy shore* runs all the way to the *Pizzo*; in your way to which you will pass the *River Bagni*, the *Forest of St. Euphemia*, the *Rivers Ippolito, Limato*, and *Angitola*; on the banks of which stands the *Town of Francavilla*: this is situated on rising ground, distant one league from the sea. The *Town of Pizzo* stands on a point of land near the sea, to the westward of which is a low *sandy beach*, within a sandbank, which serves to break

off the sea: here a vessel may find occasional anchorage in fair weather. From *Pizzo* the coast bends circularly in to the southward; passing the *Tower of S. Venere*, and the *Villages of Longobardi, Pietro di Bivoni*, and some ruins, you will then reach the *Point and Tower of St. Nicolo*; but you must not follow this part of the coast too closely, for there are some shallows, which are dangerous. Pursue your course from *Pizzo* about W. by S. (*W. $\frac{1}{2}$ N.*), and at the distance of 9 miles you will reach the *Galera Rock*, which is above water, and very near the shore: before you arrive at this rock, you will see the *Village Briatico*, and near it a little cove, on the starboard side of which is the *Tower of Irene*, and beyond that the *Tower of Zambrone*, which latter stands close to a *Cape* of that name. From *Cape Zambrone* a S. W. $\frac{1}{2}$ W. (*W. S. W.*) course will lead you to *Tropea*, and also to *Cape Vaticano*: the first of these is distant $6\frac{1}{2}$ miles from the *Galera Rock*, the latter 12 miles. The *Town of Tropea* is built upon a rock near the sea, and forms a prominent object; it is rather large, and has five churches: here also a vessel may anchor when the weather is fair; but from hence to *Cape Vaticano* the whole coast is foul and rocky. Off *Cape Vaticano* lies the *Mantineo Rock*, above water, having a channel between it and the shore, with from 4 to 7 fathoms water: it is about one quarter of a mile off the *Cape*. One mile to the northward is the *Rock Vadero*, of a similar description, but rather further from the land: there is also a rocky bank off the *Tower of Bali*, with 3 fathoms water lying very near the *Point*. From what has been stated, it will appear that although within the *Gulf of St. Euphemia* some places may be found for a vessel to anchor occasionally, and when the weather is fair, yet there is no haven or place of permanent safety; neither is there any to be found until you reach *Messina*.

From *Cape Vaticano* the coast runs somewhat circularly in a S. E. (*S. S. E. $\frac{1}{2}$ E.*) direction towards the *Town of Nocotera*, all high land; but beyond this town is a low sandy beach, extending S. westerly to *Pietro Nera*: this is called the *Gulf of Gioja*, from a town situated a little inland in latitude $38^{\circ} 25' 0''$ N.: the coast then rises again to a considerable altitude, and continues thus for 8 miles, to the *Village of Bagnara*: on the west side is a sandy beach about 1 mile long. Cliffs succeed this, and run to the *Town and Castle of Scylla*; 2 miles to the westward of which is the entrance of the *Strait of Messina*.

Scylla, or *Scilla*, is situated partly on the sea-shore, and partly above and among the rocks; the streets are narrow, and nine different rows of houses will be perceived standing one above the other: over the highest of these straight rows are others, running in an oblique direction; and there is a waterfall which descends from the rocks. This part, and all the coast hereabout, has been much injured by earthquakes, particularly by that of 1783, when a considerable part of this promontory was deracinated, and thrown into the sea. The difficulties arising from your approach have been much exaggerated; for the only danger is when the current and wind are so opposed, that a vessel may chance to be driven toward the rocks. It is, in fact, a bold headland, worn by the sea at its base, and surmounted by a castle, having a little sandy cove on each side. The castle is in latitude $38^{\circ} 14' 15''$ N., and in longitude $15^{\circ} 44' 0''$ E. From *Scylla* the *Faro Point of Sicily* bears W. by N. (*N. W. by W. $\frac{1}{2}$ W.*) distant $2\frac{1}{2}$ miles. Proceeding along the Calabrian shore, the land from the *Point of Scylla* winds round W. S. W. (*W. $\frac{1}{2}$ S.*), about $4\frac{1}{2}$ miles, to *Point Pizzo*, and from thence nearly South (*S. by W. $\frac{1}{2}$ W.*), for 13 miles, to *Cape Pellaro*: in this space two *Bays* curve inward. At the southern part of the first of these bays is the *Town of Reggio*, celebrated for its manufacture of stockings, gloves, waistcoats of thread and silk, made out of the pinna marina: it also exports wines, oil, and fruits. The surrounding country is beautiful, and abounds with oranges, citrons, mulberries, grapes, palms, and some few sugar-canes. The town is chiefly built with the materials of the ancient city, which was nearly destroyed during the earthquake of 1783. Its latitude is $38^{\circ} 5' 45''$ N. You may anchor in this bay, or in that to the southward, in from 20 to 10 fathoms, and distant from the shore half or three-quarters of a mile; but further off the water becomes too deep, and in the middle of the *Strait* there is no ground to be found with 200 fathoms of line.

About $4\frac{1}{2}$ miles S. S. E. $\frac{1}{2}$ E. (*S. by E. $\frac{1}{2}$ E.*) from *Cape Pellaro*, you will see the *Tower and Cape dell' Armi*, a mile and a half from which are the *Telegraph and Tower of Pellaro*; the land on which these stand is very high, but slopes down to the sandy beach. S. E. $\frac{1}{2}$ E. (*S. E. by S.*), about 2 leagues from the *Telegraph of Pellaro*, is the *Telegraph of Pentadatilto*, a little to the north-eastward of which is the remark-

able peaked hill of *Unci*: the land now proceeds East (*E.S.E. $\frac{1}{2}$ E.*) to *Cape Spartivento*, a distance from *Pentadattilo* of 13 miles. In your passage you will leave the *Village of Melito*, the *Tower of Salto*, *Mount Bucissa*, and the *Tower of Theodosia* on your larboard side, the shores thus far being steep-to, and clear of danger; but from abreast of *Theodosia Point* to *Cape Spartivento* there are several rocks under water, projecting out a little way from the land; these therefore must always have a good berth. There is no port or harbour along this part, which is wholly exposed to the sea, the waves in stormy weather lashing it most vehemently. *Cape Spartivento* is the S. eastern *Point of Upper Calabria*, and lies in latitude $37^{\circ} 55' 45''$ N., and in longitude $16^{\circ} 3' 15''$ E.

The Fata Morgana. This is a singular phenomenon, usually seen about the *Strait of Messina* during a certain state of the atmosphere, and which has been thus described by Angelucci:—"As I stood at my window, I was surprised by a most singular vision; the sea that washes the Sicilian shores swelled up, and became, for 10 miles in length, like a chain of dark mountains; while the waters near our Calabrian coast grew quite smooth, and, in an instant, appeared as one clear polished mirror, reclining against the ridge. On this glass was depicted, in *chiaro-schuro*, a string of several thousands of pilasters, all equal in altitude, distance, and degree of light and shade. In a moment they lost half their height, and bent into arcades, like Roman aqueducts. A long cornice was next formed on the top, and above it rose castles innumerable, all perfectly alike. These soon split into towers, which were shortly lost in colonnades, then windows, and at last ended in pines, cypresses, and other trees, even and similar. This is the *Fata Morgana*."

Captain Smyth has observed, "that one of the most extraordinary phenomena of this celebrated region is an aerial illusion, called the *Fata Morgana*, from being supposed to be a spectacle under the influence of the Queen of the Fairies, the *Morgain la Fay* of popular legends. It occurs during calms, when the weather is warm, and the tides at their highest; and it is said, by some refractive property, to present in the air multiplied images of objects existing on the coasts, with wonderful precision and magnificence. The most perfect are reported to have been seen from the vicinity of *Reggio*, about sunrise. I much doubt, however, the accuracy of the descriptions I have heard and read, as I cannot help thinking that the imagination strongly assists these dioptric appearances, having never met with a Sicilian who had actually seen more than the loom, or mirage consequent upon a peculiar state of the atmosphere; but which, I must say, I have observed here, many times, to be unusually strong. By some it is spoken of as a luminous igniscent phenomenon, infallibly predictive of an approaching storm."

That such appearances do exist in this, and many other parts of the world, there can be little doubt; but to produce this illusion many circumstances must occur; and in the present case "the spectator must have his back turned to the east, in some elevated place, where he can command a view of the whole *Bay*: the winds must be hushed, the surface of the sea smooth, the tide at its height, and the waters pressed up by currents to a great elevation in the middle of the channel. All these events coinciding, so soon as the sun surmounts the eastern hills behind *Reggio*, and rises high enough to form an angle of forty-five degrees on the water before the *City of Messina*, every object existing or moving at *Reggio*, will be reflected and repeated upon this marine looking-glass; each image will pass rapidly off in succession, as the day advances, and the stream carries down the wave on which it appeared. Thus the parts of this moving picture will vanish in the twinkling of an eye. Sometimes the air is so impregnated with vapours, and undisturbed by winds, as to reflect objects in a kind of aerial skreen, rising about 30 feet above the level of the sea. In heavy cloudy weather, they are drawn on the surface of the water, bordered with fine prismatic colours."

SECTION VIII.

THE ÆOLIAN ISLANDS, SICILY, THE ÆGADEAN ISLANDS AND
ADJACENT SHOALS, MALTA, GOZA, PANTELLARIA,
LINOSA, LAMPEDUSA, LAMPION, &c.

1. THE ÆOLIAN ISLANDS.

Variation, One Point and a Half West.

THE ÆOLIAN OR LIPARI ISLANDS. Under this designation are eight principal *Islands*, and some smaller ones adjacent: the larger ones are named *Stromboli*, *Panaria*, *Lipari*, *Vulcano*, *Salina*, *Felicudi*, and *Alicudi*; there is also one far to the westward, generally included under this appellation, and called *Ustica*. "All these *Islands*," according to Captain Smyth, "exhibit the corrosive effects of gasses and spray; but the western coasts, rising abruptly in precipitous masses, and shelving down gradually to the eastward, is an interesting geological feature, in which it agrees with the greater part of the West India Islands, and many others. It is remarkable that, besides the western coasts of all the *Lipari Islands* being steep and craggy, they each, with scarcely any exception, have a high isolated *rock* off their northern shores, a singularity extending even to *Ustica*. The basis of the whole of this group is horn stone, with the various alterations and decompositions occasioned by volcanic influence; an influence easily traced there in all its grandest and wildest varieties.

"The climate is highly salubrious, and the weather soft and refreshing; but though a few trifling springs may be found, there is a general scarcity of water; as the soil, consisting entirely of scoria, tufa, pumice, pozzolana, and ashes, without any intervening stony stratum, except occasional masses of obdurate vitrification, rapidly absorbs the moisture: the natives are therefore obliged to construct capacious cisterns, wherein rain-water is kept in a cool temperature. Cattle are scarce and lean, because the pasturage is only fit for goats; but the lands are well cultivated, and yield grapes, currants, figs, prickly pears, corn, cotton, olives, and pulse. Rain, if violent, occasions much damage, and locusts are very injurious to the produce; yet a very active trade is constantly carried on in bitumen, pumice, nitre, pozzolana, cinnabar, coral, fish, wine, and currants: sulphur is also an article of export. The islanders are considered expert sailors, but poor, mean, and immoral."

STROMBOLI. This is the north-easternmost of the *Lipari Islands*; and the *Church of St. Bartolo* bears from the *Castle of Scylla* N. W. $\frac{1}{2}$ N. (N. N. W. $\frac{1}{4}$ N.), distant 41 miles, and from *Cape Vaticano* W. N. W. a little westerly (N. W. $\frac{1}{4}$ W. nearly), distant 31 miles; being in latitude $38^{\circ} 48' 12''$ N., and in longitude $15^{\circ} 13' 10''$ E. The *Island Stromboli* is of a conical form, upwards of 2000 feet high, and about 9 miles in circumference; there are two summits; the crater of this volcano is not exactly at its top, but on the N. W. side, about one-third of the way down: it has been distinguished from time immemorial for its eruptions, and perhaps is the only known volcano whose fires are in unceasing activity. Captain Smyth, who surveyed it in 1815, thus described it. "When the smoke cleared away, we perceived an undulating ignited substance, which, at short intervals, rose and fell in great agitation; and, when swollen to its utmost height, burst with a violent explosion, and a discharge of red-hot stones, in a semi-fluid state, accompanied with showers of ashes and sand, and a strong sulphureous smell. The masses are usually thrown up to the height of 60, 70, and 300 feet; but some, the descent of which I computed to occupy from 9 to 12 seconds, must have ascended above 1000 feet. In the moderate ejections, the stones, in their ascent, gradually diverged, like a grand pyrotechnic exhibition, and fell into the abyss again, except on the side next the sea, where they rolled down in quick succession, after bounding from the declivity to a considerable distance in the water.

"The incessant fire of this volcano is supposed to be supported by oxygen, pyrites, and sulphur; but there are no traces of bitumen. It appears to be not only the vent

of all these islands, but to have a subterraneous communication with Sicily and Italy; for, previous to a severe earthquake taking place in these parts, Stromboli has been observed to have been covered with dense clouds of smoke, and to emit, with increased activity, unusually ardent flames. It appears, moreover, from the concurrent testimony of the islanders, to be influenced by atmospheric changes; as storms, particularly those from the southward, are preceded by thick volumes of smoke; so that the native pilots are guided at night by its flame, and gain intimations of the weather in the day-time by its smoke."

Notwithstanding the existence of this volcano, the *Island of Stromboli* is extremely fertile, having a delightful verdure on its cultivated parts, which on one side extends very high up the mountain. The soil is a black mould, composed of argillaceous tufa, scoria, pozzolana, and sand. The hedges are of cane-reeds, which, when sufficiently strong, are cut down, and used as supporters for their vines. The inhabitants produce some of the finest wines in all the Mediterranean, and also a moderate quantity of wheat, barley, cotton, raisins, currants, and figs. The chief town of *Stromboli* is on the N. W. side, and divided into two straggling parts, called *San Vincenzo* and *San Bartolo*. The houses are low, with flat roofs, and there are not more than two houses of two stories high in the whole island, being built thus that the strong wintry winds may not injure them. Vestiges of ancient buildings remain, and at *San Vincenzo* there is a fountain of good water. The beach below the town is composed of a shining black sand, and terminates in a rocky point, where you will meet with a large cavern, called the *Seal's Cave*; it is 86 feet long, 35 feet wide at its entrance, and 7 feet high. Off the point is a mass of indurated pozzolana, about 240 feet high, called *Stromboluzza*, which appears, when at a distance, like a ship under sail. There is a passage between it and *Stromboli*, with 14 fathoms water in it.

From *San Bartolo* to *Point Schiarazza*, the coast is formed of rugged lava for nearly a mile, off which is a rock nearly even with the water's edge, running out a quarter of a mile, having 40 fathoms water close to it, and a little further off 70 fathoms. *Point Zarroza* is $1\frac{1}{2}$ mile more to the westward, and is the N. W. point of the island; between these points is a cove, immediately below the crater, in which, directly under the cove, as near as can be approached, is the extraordinary depth of 47 fathoms; and at a few yards farther out, from 65 to 90 fathoms: here incessant showers of red hot stones from the crater are continually falling. There are some *sunken rocks* about *Point Zarroza*, but very deep water all round them; and about a mile off them are 60 fathoms. From *Point Zarroza* to *Point Inostra*, the S. W. point of the island, the coast is composed of rugged lava. The *Village of Inostra* stands within the point, and will easily be distinguished by the *Church of San Nicolo*.

The shore hence continues rocky to the eastward as far as *Lazara*, a small village standing upon a low shingly point. There are several *caves* on the eastern coast; one of these is over *Punta Lana*, the S. E. point of the island; and a little way up the hill is the place where the *spicular iron* is found. There are gradual soundings all round the island, with the exceptions already noticed, generally decreasing from 20 to 5 fathoms.

PANARIA AND ITS ISLETS. S. W. ($W. S. W. \frac{1}{2} S.$), distant 10 miles from *Point Inostra* in *Stromboli*, is the N. W. point of the *Island of Panaria*. This island is about 11 miles in circumference, and contains nearly 200 inhabitants: numerous vestiges prove it to have once been a place of great consideration on account of its warm baths. The soil is rich and well cultivated, producing wheat, barley, oil, fruits, wine, pulse, and soda. The church is on its eastern shore, where the village stands; and the chief employment of the inhabitants is agriculture and fishing. On the south side of the island is the *Cala del Castello*, in latitude $38^{\circ} 37' 40''$ N., and longitude $15^{\circ} 2' 55''$ E.: this is a good port for small vessels. It is so called from a hill above it, which has a peaked top, and has the only beach of yellow sand in all the island. Half a league to the south-eastward of the *Cala del Castello* is a small ledge of rocks, named the *Ants*, some of which are even with the water's edge; round them are 10 fathoms, and the channel between them and *Panaria* is both deep and safe, with from 10 to 15 fathoms. Large vessels may anchor on good ground between the *Crow Rock*, which stands near the south point of *Panaria*, and the *Ants* outside the harbour, only taking the usual precautions against the adverse or sea-winds. There is also a rock above water, lying off the northern coast of *Panaria*, with deep water all round it, and a channel between them for small vessels, but without any danger.

GROUP OF DATTOLO. To the east and south-eastward of *Panaria* is a cluster of small islets, which probably formerly composed one large island. Of these islets the northernmost, which lie $2\frac{1}{2}$ miles to the eastward of *Panaria*, are named *Basiluzza* and

Lisca Nera : the former of these is the largest of the whole group, and shaped like a gunner's quoin, with steep sides and flat surface ; it has a few houses upon it, and wears the appearance of cultivation, inasmuch as you will perceive corn, flax, and vegetables growing upon it. There are many vestiges of ancient buildings. It also abounds with rabbits.

Dattolo. About $1\frac{1}{2}$ mile from the eastern point of *Panaria* is *Dattolo*, a remarkable steep white rock of lava, in a state of decomposition : in many cavities of this curious rock the inhabitants place bee-hives. The channel between *Basiluzzza* and *Panarelli* is more than a mile in breadth, and has from 30 to 35 fathoms in it ; but between *Panarelli* and *Dattolo* the passage is narrow, and has only 6 fathoms.

Lisca Bianca, *Tila Navi*, and *Bottaro*, are three *islets* on one bank, extending N. E. by E. $\frac{1}{2}$ E. and S. W. by W. $\frac{1}{2}$ W. (*E. by N. and W. by S.*) nearly 3 miles : they are almost parallel to *Dattolo* and *Panarelli*, and at the distance of $1\frac{1}{2}$ mile ; the passage between is clear and good. Of these *Lisca Bianca* is the easternmost, being a whitish rocky *islet*, 4 miles from *Panaria*, small, and partially cultivated. Next to this, distant one mile to the westward, is *Tila Navi*, appearing dark, and forming a contrast with *Lisca Bianca*, which is white. In the strait between these two a strong sulphureous smell is perceptible ; and in two places are springs of sulphureous gas, the bubbles of which rise in quick succession to the surface of the sea, where they sometimes kindle into a flame, and explode into atmospheric air. Nearly a mile to the westward of *Tila Navi* is *Bottaro*, another *islet*, which is low and rocky. To the southward of this *islet* is a lump of lava, which forms a dangerous object. Captain Smyth has named this the *St. Anne's Reef* ; it has over it from $2\frac{1}{2}$ to 5 fathoms, while round it in all directions there are 12 fathoms. It lies with *Bottaro* and *Dattolo* nearly in one, and *Tila Navi* on with the lower part of *Basiluzzza*. Captain Smyth also discovered a bank of coarse sand, shells, and lava, about a league to the south-eastward of the three *islets* last described ; he has named it the *Exmouth Bank*, and it stands so in the Charts, being in latitude $38^{\circ} 31' 45''$ N., and longitude $15^{\circ} 13' 0''$ E. Upon this *bank* there exists no danger, for over it are from 15 to 40 fathoms : its shallowest part is towards the west, and its breadth, from north to south, may be about 2 miles.

LIPARI. This is the principal and largest of the *Æolian Islands*, occasionally giving its name to the whole group. It is situated to the south-westward of *Panaria*, from which it is distant $6\frac{1}{2}$ miles : its circumference is about 18 miles, and its population calculated at 12,000. Many remains of antiquity are still visible on this *island*, and its town is situated on the eastern coast, being in latitude $38^{\circ} 27' 56''$ N., and longitude $14^{\circ} 51' 50''$ E. This place is considered to be healthy ; but the streets are narrow, irregular, crowded, and dirty ; the castle, which defends the anchorage, encloses the cathedral and several other edifices, and is built upon a huge mass of volcanic glass : here is a college. The anchorage is not safe, but open to every wind except that which blows over the *island*. The bay is formed, on the north, by *Monte Rosso*, an immense mass of reddish volcanic matter, and, on the south, by *Capo Capistello*, a rugged rock of lava ; the distance between these two points being about 2 miles. The promontory upon which the *castle* is built, divides the bay into two parts. The water at a short distance from the *island* becomes very deep ; but there is a spot about a quarter of a mile to the northward of the *castle*, and off the beach, where a *reef* of lava runs out, having 3 fathoms at its extremity, and 6 fathoms in its wash. Sixteen or 17 vessels may ride in safety between this *shoal* and the *castle*, having their anchors in 12 or 14 fathoms, and stern-fasts on the shore. Large vessels may anchor further to the north, under the *Scala di Caneto*, or *St. Giacomo* ; but here, although the bottom is good, the S. easterly winds will make it inconvenient. The craft of the *island* moor to the southward of the *castle*, off the *Pratique Office Mole*, and the fishing boats more to the southward.

To the northward of the *Bay of Lipari*, and divided only by the *Monte Rosso*, is the *Cove of Caneto*, at the bottom of which is a village of that name, situated under the white cliffs of *Campo Bianco*, which is formed of a prodigious mountain mass of pumice. At the northern base of this mountain rises *Cape Castagna*, the N. eastern promontory of the *island*. On the northern coast, to the westward of the *Mountain of Castagna*, are the cove and village of *Aquacalda*, where a vessel may lie, sheltered from southerly winds only. On the summit of *Monte Corvo*, a mile W. S. W. (*West $\frac{1}{2}$ South*) from *Aquacalda*, is the *Town of Quattro-pani*, having a church and school-house. From *Legna Nera*, or *Corvo Point*, to the N. W. end of the *island*, a distance of nearly two miles, the shores are formed of a steep cliff, which extends

thence to the southward. Off this cliff, three-quarters of a mile N. E. (*N. E. by E. $\frac{1}{2}$ E.*) from the N. W. point of the island, is a bold and steep rock, called the *Torricella*, or *Turret*; and at nearly a similar distance to the south-westward of this point, are two insulated pyramids, off the *Cliffs of Permeta*, which are distinguished by a *tower*, and close to the grotto called the *Devil's Cave*, abounding with numerous natural curiosities.

In sailing along the western shores of the *Lipari Island*, you will see the *Scoglio del Bagno*, or *Bath Rock*, distant three-quarters of a mile from the island: this is a huge and barren mass of lava, steep-to, and very high. West (*W. by N. $\frac{1}{2}$ N.*), distant 2 miles from the *Bath Rock*, is a very dangerous ledge of $2\frac{1}{2}$ fathoms. It is about 200 yards in circumference, and has a *wreck* near it, lying in 17 fathoms water. This is named the *Bentinck Shoal*: the *bank* which surrounds it has from 35 to 9 fathoms upon it, and extends above a mile to the westward, forming good fishing ground. On the island to the eastward of the *Bath Rock*, are the hot baths of *St. Calogero*, which descend through a small ravine into the sea.

Situated off the S. W. end of *Lipari* are the *Quails*; about a mile to the S. E. $\frac{1}{2}$ S. (*S. S. E.*) of which are two remarkable *rocks*, the eastern one being named *Pietra Longa*; this is a mass of volcanic laminæ, highly vitrified, of the height of 150 feet above the surface of the sea. At its base is an opening, through which a boat may pass. When seen from a little distance, it has the appearance of a ship under sail, and is frequently mistaken for one. The other *rock* is called *Corvacci*, and not so lofty; but much frequented by birds of the Gull species, which are in high estimation with the natives. To the eastward of *Pietra Longa*, and between that and *Point Chiapparò*, which is the southern point of the *Island Lipari*, is the *Praya de Vinco*, a small bay, into which the channel is perfectly safe; and within which there is occasional anchorage, during a northerly gale, although you will have a kind of disagreeable ripple at times, which is occasioned by the currents.

The *Island of Lipari* presents to the spectator, on whichever side he advances, *two prominent mountains*, which rise up perpendicularly to a great height; these are *Mount St. Angelo*, situated nearly in the middle of the island, and *Mount Guardia* towards the south: the former of these is at least 1000 feet high; but the latter is not quite so lofty. The interior of the country is singularly rugged, broken, and variegated by hills of volcanic glass, porphyritic lava, pumice, and other vitrifications, many of which must be more than 3000 years old, but yet exhibit no symptom of decomposition. Between these hills are ravines, apparently worn by the mountain torrents; along these are the roads, in some parts only 5 or 6 feet wide, and formed between cliffs of frightful height and aspect; but there are two plains, well cultivated, and producing the finest fruit, corn, olives, pulse, and a variety of vegetables. The exports consist of fish, alum, saltpetre, cinnabar, sulphur, and pumice; and there is a species of wine called *Malmsey*, which is the produce of this island, and for which there has always been a considerable demand. Although *Lipari* has not suffered from volcanic eruptions for many ages, yet its subterranean fires are not extinguished; for, on digging in the central parts to a trifling depth, heat, smoke, and sulphureous scents immediately issue, while hot steams are to be found in various places. "It is literally," says Captain Smyth, "the wreck of a vast conflagration."

VULCANO. This *Island* lies directly to the southward of *Lipari*, being divided from it by a strait, one mile broad, but of great depth of water. The land is very high, and very irregular, particularly towards the north-east, where it forms the peninsula of *Vulcanello*, or *Little Vulcan*. It contains a great variety of pumices, salts, and sulphur, in all their different states, together with lavas and vitrifications innumerable. The interior of the country is a sterile valley, much too hot for cultivation; and a great part of the shores on the south-east presents a precipitous mass of lava, scoria, pumice, and ashes, of the most sterile and forbidding aspect. In the central part, rather inclined toward the south, is *Monte dell' Aria*, the highest mountain in the island; and 2 miles to the northward of this is the great crater, which is detached from the neighbouring hills by a deep valley. Captain Smyth observes, "that on gaining the edge of this crater, a more superb and pleasing spectacle presents itself within, than is afforded by *Etna* or *Vesuvius*, from the magnitude of its dimensions, and the magnificence of the brilliant colours that every where strike the eye." From the bottom of it was a frequent explosion of gases, and a continual roar similar to a cataract, or rather many anchor-smiths' forges; this apparently arose from some vast abyss of central fires. By night a pale lambent flame issues from many fissures.

Vulcanello stands to the N. eastward of the great crater, and is connected to the island by a *rock* of lava, being so formed as to constitute two *ports* or *havens*:

of these *Porto Levante* faces the east, and *Porto Ponente* the north. The eastern point of this promontory is situated in latitude $38^{\circ} 24' 20''$ N., and in longitude $14^{\circ} 58' 30''$ E.

Porto Levante has a small sandy beach, where there is anchorage; here the noise of the volcanic matter may frequently be distinctly heard, the internal rumbling noise resembling distant thunder; and, on these occasions, you will see the clouds of smoke arise from the crater more dense and more active.

Porto Ponente affords excellent shelter for small vessels, in from $2\frac{1}{2}$ to 5 fathoms water, over a bottom of black sand. In winter a N. W. gale will at times occasion a heavy undertow; but you can then easily weigh, and work round to *Porto Levante*, where you may ride, nearly under the crater of the volcano, in perfect safety, on a bottom singularly sulphureous. On leaving *Porto Ponente* for the westward, you will pass the *Turk's Point*, which is a rugged mass of lava, steep-to, and distant from the *Port* about one mile. Between this *Point* and *Point Monaco*, the N. W. point of the island, is the *Cala di Formaggio*, a cave, with a rock in the centre: a place commonly resorted to by the fishermen during southerly winds. The west coast of the island is bold and craggy; there is a deep cavern on it, called the *Grotto del Cavallo*, off which is a steep and detached rock, *Pietra della Quieta*, having a narrow passage between it and the land. Half a league to the southward of the *Quieta Rock* is *Cape Rotta di Batti*, or *Point Rosario*, which is the south-western end of *Vulcano*: a part of this *Point* has fallen into the sea, from the corrosion of its base, and there formed a dangerous spit; but beyond this *Point* the south coast of the island is generally bold, and the land in a good state of cultivation. Here, notwithstanding the apparent barrenness of the island, grapes, flax, barilla, pulse, and fruit are produced, together with the best corn in all the islands, *Alicudi* excepted. From this shore, as the ground gradually rises up inland, the vegetation of lichens and dwarf shrubs affords food for the numerous goats which browse hereabout; and towards the middle of the valley is a little spring of fresh water, which conveniently enough empties itself into a stone trough placed for that purpose: so that this part of the island seems to be in a state of progressive improvement.

THE ISLAND SALINA. This island is situated to the north-westward of *Lipari*, and may be considered the central island of the whole group: it is distinguishable by two conical hills, formerly volcanoes, but now extinct; and is celebrated for its warm baths, which have continued from time immemorial. Between the mountains, to the north and south, is a valley, extending each way towards the sea, where the various productions of the earth are in such exuberant luxuriance, that it acquires and merits its name of "*Fossa felice*," the happy Valley: here grain, fruit, pulse, capers, salt, alum, soda, and wines are produced, all which are articles of exportation, and greatly assist the revenue of the country. There are three anchorages which small vessels resort to for its produce; but these are all open to the sea, from which there is little or no shelter: each of these has a church, surrounded by numerous low flat houses, irregularly scattered about. Of these *Santa Marina*, near the middle of the east coast, on the border of the valley, may be discovered by its church on the strand, and a large bell suspended to a tree before it. Near this is a pure spring, constantly running, and fresh water may be had by digging any where on the beach.

At the S. E. end of *Salina* is *Punta Lingua*, a long, low, shingly point, with a chapel and battery near it: in the interior of this *Point* is an extensive salt-lake. The water from this *Point* runs out shoal for about a quarter of a mile; but beyond the depth of 8 fathoms the passage between it and *Lipari* is clear, and has deep water throughout. Nearly S. by E. $\frac{1}{2}$ E. (South) from *Point Lingua*, distant 3 miles, is the *Bentinck Shoal*, already noticed, round which are 9 and 13 fathoms; it is situated in the fair-way of vessels coming from the south-westward, and passing between *Lipari* and *Salina*: directly east (E. S. E. $\frac{1}{2}$ E.), from which is the *Bath Rock*, a huge mass of lava, lying near the *Island Lipari*.

On the S. western coast of *Salina* are the rugged rocks of *Punta Spina*, which appear to have fallen from the summit of the mountain. About the middle of the western coast of the island is one of the anchorages already noticed, called *Arrenale*, having a village and church within it. The N. W. coast is rugged and abrupt, with stupendous overhanging cliffs: here is an insulated rock, called the *Pyramid*, shewing a lofty red cliff: it lies three-quarters of a mile from the shore, and has deep water all round. Between a remarkable perforated point, the northern point of the island, and *Point Apullara*, the N. E. point, lies the quarter of *Amalfi*, a populous district, in which the heights are well-wooded: here is the third of those anchorages. The houses are scattered about the church, and there are a few about *Point Apullaria*,

which point out the landing-place. On the *Point* is a chapel, and at the landing-place some magazines excavated in the *rock*. There is excellent fishing on the north coast of *Salina*, and the *pinna marina* is found in great abundance; the paper nautilus also frequents these shores, generally during the time hawk's-bill turtle are taken.

THE PENROSE ROCKS. Nearly in a line between the northern points of *Salina* and *Panaria* is a *shoal* of $4\frac{1}{2}$ fathoms, supposed to be the head of a column of lava: it is covered with marine plants, and much resorted to by fish: the depths of water around it increase abruptly to 14, 27, and 30 fathoms. Captain Smyth says "it bears from the north point of *Salina* nearly E. by N. ($E. \frac{1}{4} S.$), distant $5\frac{1}{2}$ miles, and lies with the *Church of Amalfi* immediately under the N. W. peak of *Salina*; and the western part of *Cape Custagna*, the N. E. point of *Lipari*, on with *Monte Rosso*, on the east side of the island."

FELICUDI. To the westward ($W. N. W. \frac{1}{2} W.$) of *Salina*, distant $10\frac{1}{2}$ miles, is the *Island of Felicudi*, an extinct volcano of an irregular form, and about 9 miles in circumference: its soil is fertile and well-cultivated, producing wheat, barley, grapes, olives, pulse, and flax. The population is about 800, residing in low flat-roofed houses, mostly erected upon the sloping sides of the mountains. Water is only to be obtained from a small spring issuing from *Mount Agnuolo*: this mountain is nearly 2000 feet above the level of the sea. The church, which is a small building, in latitude $38^{\circ} 34' 5'' N.$, and longitude $14^{\circ} 29' 37'' E.$, has a house on each side, and stands about half-way up the mountain towards the S. E., and near an immense dell, called *Fossa delli Felei*, supposed to have been the principal crater. At the S. E. end of the island is a small peninsula, of moderate height and conical form, connected to the island by a low isthmus, forming a cove on each side, in which there is no secure anchorage. The northern of these coves is called *Conca di Lao*, the other *Cala di Speranza*; from the first is a steep and intricate path, leading to the church and principal houses: at one-third up is a battery of one gun, which is its only defence. The shores are rugged and broken, being chiefly composed of lava. On the western shore is a most singular grotto, 60 feet wide, and 30 feet high, widening gradually to a cavern 160 feet long, 120 broad, and about 50 feet high, forming a cool retreat, and generally the abode of seals. To the W. N. W. ($N. W. \frac{1}{2} W.$), half a league from the entrance of this cavern, is the *Rock Canna*, or *Cane*, rising up 280 feet; this, from its strong resemblance to a ship, has often been mistaken for one. There are also several other rocks about, which are all steep-to, and also some off *Point Facarazzi*. On the northern shore, which is the highest on the island, is a steep black mass of compact prismatic lava, called *Fila di Sacca*, with deep water, and a passage for small craft between: there is also a channel between *Canna* and the island with 7 fathoms water.

ALICUDI. This island lies W. by S. ($W. \frac{1}{2} N.$) from *Felicudi*, distant 8 miles, and is remarkably healthy, rising up from the sea to a conical crater, with irregular ravines and precipitous hills; and though its fires have been extinct for many ages, still lava is visible, descending in streams from the summit down to the sea. Yet notwithstanding this discouraging aspect, it is every where cultivated; and by perseverance and industry it has been brought to bear corn, flax, barilla, capers, and pulse; the bread made by the natives being peculiarly fine and good. The population is not above 300. The Church stands on the S. E. side, and is situated high up the mountain. The coasts are rude craggy precipices, having only two landing-places; the one to the S. E., under the *Point Palomba*, is the best: here the fishermen draw up their boats on to a sandy beach; but the landing is insecure and difficult, more especially when the wind is fresh.

The Church of *Alicudi* is in latitude $38^{\circ} 32' 41'' N.$, and longitude $14^{\circ} 16' 30'' E.$

This may properly be considered the westernmost of the *Aeolian* or *Lipari Islands*; but there is another *Island* situated at a great distance, which is commonly included in the number, and named *Ustica*.

THE ISLAND OF USTICA is in latitude $38^{\circ} 43' 17'' N.$ and longitude $13^{\circ} 11' 10'' E.$ It bears from *Alicudi* W. by N. ($W. N. W. \frac{1}{2} N.$), distant 50 miles; and from *Palermo*, in *Sicily*, N. by W. $\frac{1}{2} W.$ (*North*), distant 35 miles. It is entirely composed of volcanic substances, but is very fertile: fish are caught in its vicinity, and quantities obtained of excellent highly-coloured coral. There is a population of 17 or 1800. A weekly packet sails from hence to *Palermo*, bringing from thence, and from *Cefalu*, a sort of charcoal made from the roots of olive-trees.

Ustica, from a distance, east or west, appears like two small islands, and may be approached without apprehension, only taking care to avoid *Walker's Rocks*: these are a reef of 9 feet, which lie at the distance of one mile N. by E. $\frac{1}{2} E.$

(*N. E. by N.*) from the central north part of the *Island*, having from 7 to 12 fathoms around them. There are also three fishing-banks in the vicinity of the *island*, called the *Apollo*, the *Diana*, and the *Juno*. The *Apollo* lies W. S. W. $\frac{1}{2}$ W. (*West*) from *Spalmadora Point*, and has from 15 to 25 fathoms upon it; the *Diana*, S. E. $\frac{1}{2}$ S. (*S. S. E. $\frac{1}{2}$ E.*) from *Point Cavazzi*, with from 11 to 20 fathoms; and the *Juno*, E. $\frac{1}{2}$ N. (*E. by S.*) from the *Cove of Santa Maria*, with from 55 to 80 fathoms, the ground being of coral. On several parts of the *Coast of Ustica* are spacious grottoes, with deep water within them; and on the eastern shore there is one with a singular stalagmitic incrustation of shells, intermixed with lava: near this is another, large enough to form a retreat for the fishermen, in case of pirates or danger. Off the western side, at about half a mile to the westward of the steep cliffy *cove* of the *Passo de Madonna*, is a large and singular rock of lava, called *Medico*, with deep water all round it, and a passage between it and the *island*. Upon this *island*, which is not above $2\frac{1}{2}$ miles broad, there is a village, called *Santa Maria*, standing by a little *cove* on the N. eastern coast, sufficiently large for the feluccas which frequent it: it is secure from all but the Sirocco winds. The town is tolerably large, and the streets clean and regular: there is a church, hospital, and school-house. The *cove* is only one-tenth of a mile wide, with 5 fathoms about the centre, and lies between a hill, named *Falconara*, on the N. E., with a *fort* and *prison* on its summit, and a high bluff on the S. W., on which is a *square tower* that cannot easily be mistaken. There is also another *tower*, the *Spalmadora*, which commands the landing-place on the S. W. part of the *island*.

The *Island of Ustica* is a good mark for vessels bound to *Palermo*, or the northern parts of *Sicily*.

2. SICILY; ÆGADEAN ISLANDS, WITH THE SHOALS ADJACENT; AND THE ISLAND OF PANTELLARIA.

THE ISLAND OF SICILY. This *island* is the largest and most important in the Mediterranean: its form is an irregular triangle, and its circumference computed to be about 450 miles. It is supposed formerly to have been joined to the Continent, and separated from it by some volcanic eruption; while, from its favourable situation, mild climate, great fertility; from its strong military position, secure harbours, and extensive resources; it must always be entitled to pre-eminent consideration. The principal chain of mountains seems to be a continuation of the Apennines, and extend nearly east and west: by far the greatest and most remarkable of these is *Mount Etna*, which stands at the western part of the *island*, and whose summit is 10,874 feet above the level of the sea. There are many streams about the *island*, so that it is well-watered; but the principal rivers are the *Fiume Grande*, the *Salso*, and the *Giaretta*. There are few roads, or bridges over these rivers: the interior communication is chiefly carried on by mules, the breed of horses and cattle being generally neglected.

Sicily is rich in mineral productions, of which there is a great variety. Iron and copper, silver and lead, rock-salt, bitumen and gypsum, marble, and stone for building, are found in almost every part of the *island*: agates, jasper, porphyry, and alabaster are common; and a coal-mine has been discovered in the vicinity of *Messina*. The mineral waters, both hot and cold, have been celebrated for ages. The climate is pleasant, their winter corresponding with our spring, and the heats of summer are delightfully tempered by the breezes of the sea: comparatively speaking, the sky of *Sicily* is cloudless, its vegetation luxuriant, and its scenery beautifully diversified. Yet with all this, there are many morasses and stagnant pools of water, the effluvia from which corrupts and renders the air unhealthy; and they are much annoyed by the Sirocco or south-easterly winds, which coming over the Deserts of Africa, frequently become a serious inconvenience. At their commencement the atmosphere is dense and heavy, with long white clouds settling a little below the mountains, and, at sea, floating just above the horizon, in a direction parallel to it. They generally continue three or four days, during which time wine cannot be fined or meat salted; but though thus blighting in their effects in summer, they appear to be favourable to the growth of many useful plants in winter.

The appearance of the *coasts of Sicily* presents a combination of mountains, ravines, and vallies; these latter possess a soil exuberantly fertile, while the hilly regions abound with elms, chestnuts, pines, oak, ash, and a variety of other useful woods. The *grape* and the *olive* are cultivated with considerable care, and *manna*.

collected from the bark of a species of the ash-tree, yields a revenue of £40,000 per annum. Barilla is also a profitable article of exportation; to these may be added saffron, sumach, pistacio-nuts, figs, and almonds. Such declivities of the hills as are too steep for cultivation, produce the arbutus, myrtle, coronilla, heaths, Spanish broom, and the evergreen oak, which are cut down every third year to constitute fire-wood.

The principal cities and towns in *Sicily* are *Palermo* (the capital), *Trapani*, *Marsala*, *Catania*, and *Messina*: these are all situated near the sea. The present population is about 1,650,000.

THE NORTH COAST OF SICILY, FROM THE FARO OR STRAIT OF MESSINA TO CAPE ST. VITO.

The northern shore of *Sicily* has a hilly steep appearance, with very few hidden dangers. The winds most prevalent are between the S. W. and the N. W.: these are commonly preceded by a long swell of the sea, which rises with their increase. The tides usually set to the eastward; but these do not appear to be so much under the influence of the moon as the weather, and seldom either rise or fall above 20 inches.

THE FARO POINT OF MESSINA, upon which stands a *lighthouse*, lies in latitude $38^{\circ} 15' 50''$ N., and longitude $15^{\circ} 40' 40''$ E. It was formerly called *Cape Pelorus*, and is a low sandy point, having an old fortified tower, together with two batteries and two *Martello towers* upon it, the whole of which are commanded by the telegraph redoubt which stands on a hill about half a mile to the westward of the *lighthouse*. The *Village of Faro* is to the S. W. westward of the *lighthouse*, distant about a quarter of a mile; it is small and dirty, but the country adjacent is highly picturesque, and produces the celebrated *Falernian wine*. Between the beach and the hills, to the southward and eastward, are two small lagoons, famous for eels and cockles. From the *Faro Point* the northern coast of *Sicily* runs W. N. W. (*N. W. $\frac{1}{2}$ W.*), about $5\frac{1}{2}$ miles to a point of land, *Arena Bianca*, from whence it turns more westerly (*W. N. W. $\frac{1}{2}$ W.*), for 2 miles, to *Cape Rasaculmo*. This *Cape* is a flat promontory of moderate height, having on its outer point the remains of a strong *Saracenic tower*, and near it a turret with a telegraph upon it: some sand-hills are under the *Cape*, and some low rocks at its base; these latter are called the *Pietra del Rais*. *Arena Bianca* may be known by a fishing village near it, called *Aqua Ladrone*: hereabout is excellent anchorage, in from 20 to 15 fathoms, fine stiff mud. In taking this anchorage, you should stand in until *Faro Tower* bears S. E. by E. (*S. E. $\frac{3}{4}$ S.*), distant 5 miles, and drop your best bower.

From *Cape Rasaculmo* the coast runs W. S. W. (*W. $\frac{1}{2}$ S.*), $14\frac{1}{2}$ miles towards *Milazzo*: this town or city is situated at the southern part of a peninsula, which runs out to the northward near $2\frac{1}{2}$ miles, having a *lighthouse* at its further end, in latitude $38^{\circ} 15' 58''$ N., and longitude $15^{\circ} 14' 10''$ E. The City is divided into the lower and the upper towns, both of which are irregularly built, and contain a population of 8000, who subsist by the exportation of wine, silk, fruit, rags, soap, red and white argols, corn, olive, and linseed oils, tunny fish, &c. An enclosed sea-battery, called *Fort St. Elmo*, stands at the southern part of the town; and the Citadel is to the N. westward of the upper town, being about 320 feet above the level of the sea, and commands both towns, the port, and the promontory.

MILAZZO BAY is spacious and deep, with a bottom of mud and blue clay in deep water; but towards the shore it is sandy. This place is very little affected by the tides, but the anchorage is greatly injured by the fishermen leaving there the large stones with which they secure their nets; an evil that is continually increasing. If desirous of anchoring before *Milazzo*, get round the point, off which are some rocks under water; run a little way out, and anchor abreast of the town; let go your best bower to the E. S. Eastward, having a fast on shore, and you will have 20, 25, and 30 fathoms, sand and mud. Ships may also go nearer to the town, and anchor in 10 and 15 fathoms. Captain Smyth recommends the following anchorage, in 25 fathoms, stiff mud, about a quarter of a mile off shore, with the *Beacon Rock* off the east end of the upper town, bearing N. E. $\frac{1}{4}$ N., the *Castle N.*, *Fort St. Elmo* nearly W. by N., and *Cape Rasaculmo* E. $\frac{1}{4}$ S., distant from the last about 14 miles. These are compass bearings. Water may be had to the southward, and galleys frequently anchor there, opposite the third house from the westward near the sea-side; here are 4, 5, 6, and 7 fathoms, with a bottom of sand: towards the west are some marshy grounds, and a large and fertile plain: the winds from E. N. E. send

in a heavy sea. The *Pratique* is under *Fort St. Elmo*; the watering-place bears from the shipping in the road nearly S. by E. (*S. $\frac{1}{2}$ W.*), and is on a fine sandy beach, where, as the stream separates into several brooks, it is convenient for many boats at a time: the quickest methods of filling is by handing buckets.

From *Milazzo* a sandy beach extends to the south-westward, having several towns, villages, and towers upon it; of these the most remarkable are those of *Pozzi do Gatto*, *Barcelona*, and *Fornari*: the coast is free from danger. About 2 miles to the westward of *Fornari* is the little village of *Falcona*, where a small rivulet empties itself into the sea; and beyond *Falcona* is the *Town of Olivieri*.

THE BAY OF OLIVIERI has excellent anchorage in from 8 to 30 fathoms, for vessels of every description; those bound westward may find it advantageous during heavy gales, as it may always be fetched, and is in some degree sheltered by the *Æolian Islands* and the *Shoal of Madonna*, from the strong northerly sea; but during several months in the year it is very unhealthy. The best anchorage, according to Captain Smyth, is in 15 fathoms, stiff clay, a quarter of a mile from the shore; *Point Tyndaris* bearing N. by W. $\frac{1}{2}$ W.; the *Convent over Port Madonna* N. W. $\frac{1}{2}$ N.; the *Palace of Olivieri* S. W. $\frac{1}{2}$ W.; the *Village Falcona* S. $\frac{1}{2}$ E.; *Milazzo Lighthouse* N. E. by E. $\frac{1}{2}$ E. These bearings are by compass. Moor W. N. W. and E. S. E. (*W. $\frac{1}{2}$ N. and E. $\frac{1}{2}$ S.*), with open hawse to the northerly wind and sea. *Cape Tyndaris*, which is the N. W. boundary of the *Bay of Olivieri*, is bold-to, and has a monastery on its summit, which will serve to distinguish it even at a distance; it is in latitude $38^{\circ} 7' 10''$ N., and longitude $15^{\circ} 2' 30''$ E.: there is a singular roadstead on its eastern side, called *Port Madonna*, where small vessels may ride secure, and sheltered from all winds: its circumference is not above half a mile, and its depth in the middle 14 feet. A sandbank, already mentioned, extends from it about half a mile into the offing, which vessels must avoid, by giving a wide berth, and steering well to the eastward.

BAY OF PATTI. From *Point Tyndaris* to *Cape Calava* the bearing and distance are W. N. W. $\frac{1}{2}$ W. (*N. W. $\frac{1}{2}$ W.*), $6\frac{1}{2}$ miles. The coast between them winds round semi-circularly, and forms the *Bay of Patti*, within which, pleasantly situate, is the *Town of Patti*, containing a population of 4000. This place is perfectly safe, only paying proper attention to the lead, for the *Bay* is deep, the soundings regular, and the ground sand and clay: near the centre of the *Bay* is a large rock, with two smaller ones near it; but these are visible, and therefore not dangerous. They are named the *Rocks of St. Nicolo*: the channel between them and the beach is perfectly safe, and affords good summer anchorage; but it will be proper to look to the anchors every third or fourth day, as the sand is apt to bank, particularly after a breeze.

Cape Calava is in latitude $38^{\circ} 9' 40''$ N., and longitude $14^{\circ} 34' 0''$ E. A little before you come to the *Cape*, you will see the small *Town of Gioiosa Nuova*, standing at the foot of a mountain; and further north, the *Village of Ogiastro*, with a small rock under water just before it.

Cape Calava is rather steep-to, and has a great number of red spots about it: between it and the *Lipari Islands* there is deep water, no danger, and room sufficient for whole fleets to pass without any inconvenience. From *Cape Calava* to *Cape Orlando* the course and distance are W. S. W. $\frac{1}{2}$ W. (*West*), 8 miles: about half-way between them are the *Brolo Rock* and *Castle*; the latter is a ruinous building, standing upon a steep cliff, in a fertile valley formed by the meeting of several mountain torrents. Three-quarters of a mile to the northward of this *Castle* is the *Brolo Rock*, about 16 yards in circumference, and 20 feet above the level of the water: there is a passage between them with 9 fathoms, but this should never be taken unless in cases of necessity, as there is a swash to the W. S. W. (*W. $\frac{1}{2}$ S.*) from the *Great Rock*, about half-way over towards the shore. Here Captain Smyth found good riding, even in winter, although the anchorage is exposed to N. W. and N. E. winds; yet, he observes, the most troublesome winds are those from the southward, as they blow with great violence from the height on which stands the *Town of Piraino*. The *Brolo Rock* bears from *Cape Calava* S. W. by W. $\frac{1}{2}$ W. (*W. $\frac{1}{2}$ S.*), distant $4\frac{1}{2}$ miles; and from *Brolo Rock*, *Cape Orlando* bears West (*W. N. W. $\frac{1}{2}$ W.*), distant $3\frac{1}{2}$ miles.

Cape Orlando, in latitude $38^{\circ} 7' 46''$ N., and longitude $14^{\circ} 44' 30''$ E., is a high, steep point of land, upon which stands an old castle, now used as a church and burial-place for those who may be unfortunately wrecked hereabout; a catastrophe which too frequently happens. A little to the eastward of the *Cape* is the *Village of St. Gregorio*, having a kind of cove, being a privileged place for timber: here you will find anchorage with westerly winds, tolerably protected, except from the northward. Inland will be

seen the *Town of Naso*, standing on a hill, surrounded by woods, with some store-houses on shore below it: and on rounding the *Cape*, there will appear two projecting *rocks*, jutting out like *moles*, where the small country craft commonly lie: a little to the westward of the *Cape* is also a *ledge of rocks*, just above water, upon which several vessels have been lost. Between the reef and beach there is anchorage for small craft. In the space between the *Capes Calava* and *Orlando* there are many small rivulets, which are swelled to considerable torrents during the rainy season.

From *Cape Orlando* to *Caronia* the bearing and distance are W. S. W. $\frac{1}{2}$ S. (*W. S. W. $\frac{1}{2}$ W.*), $16\frac{1}{2}$ miles: in this track you will pass the towns, villages, and rivers of *Drago*, *Frazano*, *St. Marco*, *Militello*, *St. Agata*, *Laurò*, and *Aqua Dolce*. *St. Marco* is situated on a hill inland, and contains between 2 and 3000 inhabitants. *St. Agata* is built on the beach of a level fertile country; but the inhabitants are afflicted with malaria, except in those few places where charcoal is made: a little to the eastward of *St. Agata Town* is the *Rosa Marina Fiumara*, a beautiful torrent, whose banks are covered with mulberries, oleanders, and myrtles. The produce of the country hereabouts is honey, corn, wine, and silk. In advancing from *St. Agata* to the westward, distant $5\frac{1}{2}$ miles, there are some small *rocks* lying close in to the shore, called the *Rats*, and about 2 miles further are others, named the *Mice*; these are all close in to the land, with regular soundings towards them, decreasing from 50 fathoms to 20 within a quarter of a mile off the beach, with a bottom of clay and sand; and this continues all the way from *Orlando* to *Caronia*.

Caronia is in latitude $37^{\circ} 59' 45''$ N., and longitude $14^{\circ} 26' 0''$ E., and stands upon the top of a rugged hill, on the skirts of a large forest; it is a little town, protected by a *castle*. The neighbouring forest, which is the largest in *Sicily*, is composed of oak, elm, pine, and ash of the best qualities; but these are annually cut down to make charcoal.

Sailing on to the westward for about 17 miles, you will arrive at *Cefalu*.

CEFALU. In the above course you will pass the *Towns of St. Stefano, Mistretto, Pettineo, Tusa, and Pollino*. There is no danger in sailing along, and you may be regulated in your approach towards the coast by the lead. The country is all very fertile, and produces wine, cork, oil, silk, flax, manna, timber, and charcoal. At *Tusa* is a *telegraph*. Westward of *Tusa* is the romantic *Castle of Pollina*, intersected by the *River Ambrosia*, which runs through a deep valley between the mountains. Through this valley there frequently rush such violent gusts of wind as to occasion mariners to give it the name of *Mala Portuso*, or the *Bad Hole*. You will readily distinguish it by the high mountain to the eastward of it, upon which stands the *Castle of Pollina*, before mentioned; you will also recognise it by the telegraph on the *Point of Tusa*, and by the *Point of Razigerbi*, which has some *rocks* about it. Near to *Cefalu* is a small cove, called *Calura*, where coasters frequently run for shelter, under the protection of the tower on the point.

Cefalu is situated in latitude $38^{\circ} 0' 0''$ N., and in longitude $14^{\circ} 3' 57''$ E., and contains about 9000 inhabitants, who are chiefly employed in agriculture and fishing. There is a large Cathedral, and on the summit of a mountain is an old Saracenic castle in ruins: the town stands on a low projecting point beneath a lofty conical mountain.

A little to the westward of *Cefalu* is a small sandy Bay, where coasters find summer anchorage with from 3 to 7 fathoms: a small pier runs out, to the N. westward of which there are two shoals, with 8 and 9 fathoms water over them. Captain Smyth here asserts, that "when small native vessels are surprised here, or indeed on any part of this coast, by fresh winds, and are unable to haul up on the beach, they are anchored, and abandoned; for Sicilian Underwriters will not pay for any vessel stranded, if there was a man on board: therefore when bad weather is coming on, they moor with their best ground tackle, and repair on shore, leaving the vessel to the mercy of the winds, waves, and Saints."

About 11 miles to the westward of *Cefalu* is the *Fiume Grande*, one of the largest rivers in *Sicily*; before you come to which, you will see the *Village of Rucello*, and the *Campo Felice*. Passing the entrance of *Fiume Grande*, at the distance of near 2 miles to the westward, is the ancient *Himera*; and further on, about 5 miles, are the *Town and Castle of Termini*, where are the vestiges of some antique baths. This town stands upon the declivity of a hill, and when seen from the sea, has a good appearance; but its streets are in general narrow and dirty: there are, however, a few tolerable houses, and a population of 11,000, who derive their principal support from the fishery for anchovies, and the exports of wine, oil, corn, sumach, and rice. This is

a privileged port, and was endowed by Charles the Fifth as a loading-place for exporting the produce of the country; but as the anchorage is exposed during two-thirds of the year, it can only be frequented by boats that may be drawn up on the beach. The *Castle* is built upon a high rock, and entirely commands both the town and adjacent coast, being in latitude $37^{\circ} 57' 28''$ N., and longitude $13^{\circ} 42' 0''$ E.

CAPE ZAFFARANA. From the *Point of Termini* the coast runs W. N. W. (N. W. $\frac{1}{2}$ W.) for $6\frac{1}{2}$ miles, towards the little *Town of Mandro*; and from thence N. by W. (N. $\frac{1}{2}$ E.) to *Cape Zaffarana*, a distance of $6\frac{1}{2}$ miles more: in this latter space you will see the *Town of Milicia*, near which is the *Castle of Solanto*, and the tunny-fishery belonging to the King. *Cape Zaffarana* seems detached from the main table-land which lies to the westward of it, and, when viewed from seaward, has the appearance of an island. Its form is conical, rising up to a considerable height, with a large rock off its base, and a narrow channel of 4 fathoms between. Its approach is steep, having from 20 to 15 fathoms close in. S. E. by E. (S. E. $\frac{1}{2}$ S.), distant $2\frac{1}{2}$ miles from the *Cape*, are the *Rocks of Solanto*, which consist of two ledges of rocks even with the water's edge, with 40 fathoms at a little distance from them, and from 27 to 15 between them and the *Cape*. The space between *Mindoro* and the *Cape* is usually called the *Bay of Solanto*, where vessels, unable to fetch into the *Bay of Palermo*, during a westerly gale, may find good anchorage, only taking care to avoid the above rocks in entering.

PALERMO. From *Cape Zaffarana* the land runs W. N. W. (N. W. $\frac{1}{2}$ W.), about $1\frac{1}{2}$ mile, to *Point Mongerbino*, where it turns round S. W. by S. (S. W. $\frac{1}{2}$ W.) to *St. Theodore*: the whole of this is a rocky promontory, of considerable elevation, and forms the S. eastern boundary to the *Bay of Palermo*.

The *City of Palermo*, the capital of *Sicily*, stands on the S. western side of the *Bay*, on a wide and fertile plain, and is surrounded by an old wall, but of very little strength. The *Citadel* is erected on the western bank of the *Cala Felice*, and is only calculated for temporary resistance; but the *Fort of Galita*, on the opposite side of the *Cove*, is respectable, and the *battery* on the *Mole-head* tolerably strong. When you are approaching the *City* from seaward, it presents a most beautiful appearance: the *Bay* forms a graceful sweep along the shore; the domes, turrets, and spires rise conspicuous above the surrounding buildings; and the adjacent plain exhibits convents, villas, and cottages, romantically interspersed among the most luxuriant foliage; while in the distance, to the east and south, rises an amphitheatre of majestic mountain scenery. Nor are these impressions effaced on first entering the town, for the principal streets are handsome, and the various fountains, statues, and busts in front of them are appropriate decorations of a capital; but a closer inspection greatly lessens the admiration. Two principal streets, upwards of a mile long, divide the *City* into four quarters, and at the middle point of intersection is a handsome octangle, called the *Quattro Cantoneri*: fronting the sea is a noble line of buildings, with a carriage road and broad pavement; and at its eastern end is the *Flora*, a public garden, exhibiting rows of orange, lemon, citron, and lime trees, with parterres of odoriferous plants, which are seen in the greatest perfection on the Feast of St. Rosalia.

To the N. eastward of the *City* is a *Mole*, extending southward from the *arsenal* a quarter of a mile, with a *lighthouse* and *battery* at its end; this is a noble construction, but the *light*, like all others in *Sicily*, is badly attended to: this *mole* forms a convenient port, and is capable of containing a great number of vessels. Besides this, there is the small *Cove of Cala Felice* in front of the town, on the east side of which is the *Pratique Office*, and the usual landing-place adjacent. The *Lazaretto* is in a rocky bay to the northward of the *Mole*, called *Aqua Santa*. Opposite the *Marina* is a shoal, chiefly composed of mud, most probably collected round some vessels which formerly were sunk there.

When sailing into the *Bay of Palermo*, you must be guarded against the nets of the tunny fisheries; for these are so strong and well-moored, that they are capable of arresting the progress of a ship under sail. When coming round the northern point of *Cape di Gallo*, you may boldly steer on for the anchorage, only being guarded against the violent and sudden squalls which issue at times from *Mount Pellegrino*, especially in winter. It will therefore be proper, in standing along the west side of the *Bay* with a breeze, to station hands by the sheets and haulyards, and be ready to keep large. The best anchorage for a temporary stay is in an angular direction off the *Mole*, in from 16 to 25 fathoms. Ships should moor with the small bower to the N. westward, and the best south-eastward, keeping an open hawse to the N. E.; and if blowing from the eastward, in winter, ride with a cable and a half on each

bower; then should the gale increase, strike lower yards and topmasts, let go the sheet-anchor under foot, and bend the spare cable, as precautions against the worst weather. But though a heavy sea sends in, it never rolls home, and there will be little danger in riding out the severest gales. Chain-cables are to be preferred for a certain spell, because a long range is like backing the bowers; and as several anchors have been lost, they may cut the hempen cables. If a ship parts, she must inevitably go on shore on the reef under the *Citadel*; for the long swell that sets in from that quarter, renders all exertions to clear it useless. Therefore, the best spot appears to be in 19 fathoms, stiff clay, about half a mile from the shore, the lighthouse bearing N. W. $\frac{1}{2}$ W. (N. W. by N.); the *Town of Monreale* over the middle of *Palermo*, nearly W. S. W. ($W. \frac{1}{2}$ S.); the summit of *Mount Pellegrino* N. by W. $\frac{1}{2}$ W. (North); *Corsari Tower*, on the south shore, S. E. $\frac{1}{2}$ S. (S. S. E.); and *Point Mongerbino*, the eastern extremity of *Palermo Bay*, E. S. E. $\frac{1}{2}$ E. (S. E. by E. $\frac{1}{2}$ E.).

The *Mole Harbour* is capable of holding a great number of vessels, but there is a shoal in the middle of it, over which are only 1 and 2 fathoms (See the Chart). The inner port is reserved for the use of the arsenal, having magazines with naval stores, and a prison for galley-slaves. Ships on entering should brush by the *Mole-head*, and on passing, lay out the best bower to the S. westward, and haul the stern close to the pier; for the winds that rush through the valley of the *Conca d'Oro* are often very troublesome. The central part of the port is rocky as well as shallow.

Small craft take shelter in the *Cala Felice*, where, in summer, vessels of 200 tons may lie in safety; but sea-winds occasion a disagreeable ground swell. Water is procured at the quay by filling the casks with hoses which lead into the boats. There is anchorage almost all over the *Bay of Palermo*: the only exceptions are, a large patch of foul ground, on which the sea breaks heavily during the sea-winds, which stretches from the *Castle* and *Cala Felice* along shore into the *Mole harbour*; and the foul spot nearly opposite to the central part of the *Marina*, carrying 11 fathoms water, and deepening to 18 and 20, where many anchors have been lost.

The trade of *Palermo* is not extensive, and the exports are confined to few articles: these are silk and satin, chiefly for *Malta*; wine, oil, and the tunny fish; but their imports are considerable, and comprise every article of luxuriance and convenience. The silk-thread manufactured here from the *pinna marina* is much esteemed, and of almost unrivalled fineness. The population is estimated at 140,000. *Palermo Lighthouse* is in latitude $38^{\circ} 8' 15''$ N., and longitude $13^{\circ} 21' 56''$ E.

Leaving *Palermo*, the coast runs northerly toward *Cape di Gallo*. On *Monte Pelagrino* are two signal towers, a grotto, and some other buildings; and between *Monte Pelagrino* and *Cape di Gallo* is the *Valley of Conca d'Oro*, where the small *Bay of Mondello* is situated. On *Monte Gallo* are several caverns inhabited by goatherds: the *Cape* itself is a rugged cliff with brown red patches, appearing from seaward like an island. On rounding the *Cape*, when bound for *Palermo*, a high conical rock will be seen to the south-eastward, at the distance of four leagues off; this is *Cape Zaffarana*, the course to which will be S. E. $\frac{1}{2}$ E. (S. S. E. $\frac{1}{2}$ E.), and the distance 13 miles.

W. by S. ($W. \frac{1}{2}$ N.) from *Cape di Gallo*, distant 10 miles, is *Cape Orso*: about 4 miles to the westward of this *Cape* is the *Island Femina*, which is a rock, rather steep at the north end, and has a strong tower at its summit. This is the eastern point of the *Bay of Carini*, within which there is good anchorage with southerly winds; but you must not go too far in, for the water towards the shore becomes very shallow. At the bottom of the *Bay* is the site of the ancient town of *Hyccara*, and behind it the large *Village of Carini*: here is a Gothic castle, with several churches, convents, and other public buildings. From the *Island Femina* to the *Cape of Orso* the distance is 5 miles. From *Point Uomo Morto*, which is the western point of *Cape Orso*, to *Point Rama*, the bearing and distance are S. W. $\frac{1}{2}$ S. (S. W. by W. $\frac{1}{2}$ W.), $4\frac{1}{2}$ miles. The land between them is very irregular, with the *Towns of Cinisa* and *Favadotta* inland; about *Orso* and *Uomo* it becomes low and shelving: each point is defended by a good tower, and off the former is an excellent fishery.

THE GULF OF CASTEL A MARE. This is a spacious *Bay*, denting in between *Point Rama* and *Cape St. Vito*, having deep water and good anchorage near its shores; but it is not safe with northerly winds, to which it is quite exposed, and which send in a heavy sea, mostly blowing home. S. W. ($W. S. W. \frac{1}{2}$ S.) from *Point Rama*, distant $9\frac{1}{2}$ miles, is situated the *Town of Castel A Mare*; it is a low and dirty town, but stands in a finely cultivated neighbourhood, with a population of 5000 inhabitants, who export wines, fruit, manna, grain, and sumach. The

Castle, erected upon a tongue of land, is falling fast to decay, and the road leading from the *cove* to it is so narrow, as to be quite hazardous by night. At a little distance from the town are some very ancient ruins. In advancing from *Point Rama* towards *Castel a Mare*, you will pass the villages of *Caramita*, *Sicarra*, and *Magazinazza*. *Cape Rama* is a long tabled *cliff*, within which you will perceive a conical mountain, and the towns of *Cinisi* and *Favoretta*: this hill, seen far off to seaward, is what is commonly named *Cape Orso*.

Vessels arriving here in summer, frequently lie off the low white cliffs of *Favoretta*, but not far from the sandy beach, in from 9 to 5 fathoms water; but in standing in, *Point Molinazzo* must have a good berth. The western side of the *Gulf of Castel a Mare* is mostly high and steep, there being 10, 12, and 13 fathoms very close to the land; but there are some *coves* within, which small vessels occasionally run into, but none of use to shipping. From *Castel a Mare* the coast runs in a northerly direction, nearly 12 miles, to *Point Sireno*, upon which stands a *watch-tower*; this is the easternmost part of *Cape St. Vito*, the western point being called *Agra*.

Cape St. Vito is the north-western *Point of Sicily*, and the general landfall for vessels coming from the westward; it is high, round, and rugged, bearing from *Cape di Gallo* W. $\frac{1}{2}$ S. (*W. by N.*), from which it is distant 26 miles. It is in latitude $38^{\circ} 12' 26''$ N., and longitude $12^{\circ} 45' 58''$ E. Large vessels should *always* give it a berth in passing, of full 3 miles, in order that they may go on the north side of a *rocky shoal* which lies off the *Cape*; although between this *shoal* and the point there is a channel for small vessels, with 5 and 7 fathoms. When *Agra Tower* begins to touch *Mount Cefano*, the outer extremity of which is like a rugged rock of a conical form, and lies 2 leagues to the south-westward of *Agra Tower*, it will mark the extremity of the *shoal*, on the north point of which are from $3\frac{1}{2}$ to 4 fathoms water, with from 12 to 30 and 50 outside, the sea in heavy gales breaking over it. Between the *Points of Agra and Sireno* is a kind of *cove*, where small craft may find anchorage, near the *Church of St. Vito*, protected by the two towers. Similar *towers* are erected upon most of the prominent points of *Sicily*, for the defence of the coast, and to prevent smuggling; but these are now neglected, and serve only as guards for the Office of Health.

THE ÆGADEAN ISLANDS, PANTELLARIA, AND ADJACENT SHOALS.

THE ÆGADEAN ISLANDS consist of *Maritimo*, *Favignana*, *Levanso*, *Formiche*, &c. Of these *islands* the westernmost is *Maritimo*, long known and used as a landfall and point of departure, whose situation is now accurately determined; its *Castle* being in latitude $38^{\circ} 1' 10''$ N., and longitude $12^{\circ} 3' 55''$ E.

Maritimo is high, and about 7 miles in circumference. Its western side is rugged, and almost inaccessible; but its eastern side is considerably lower, and has a few scattered houses upon it, affording habitation for 50 or 60 people, who cultivate the ground about it, collect honey, and export faggots to *Trapani*: these houses are called the *Village of San Simone*. You may obtain fresh water here, and the landing, with westerly winds, is good: the fishing vessels commonly take shelter in a small *cove*, *Cala Bianca*, under the N. W. point of the *island*, where they have 6 fathoms water.

The north-east point of the *island* is a high steep *rock*, connected to the island by a narrow isthmus, on the summit of which stands the *castle* before mentioned, intended to protect the anchorage below. This castle is the residence of a Sicilian Colonel, who is Governor of the Island; it is garrisoned by about 40 soldiers, and is often used as a State prison.

Vessels bound from the westward towards *Palermo*, after making *Maritimo*, should keep *St. Vito* on the larboard bow; for as this land is high and of a conical form, it cannot well be mistaken. By so doing, they will clear *Levanso*, the *Porcelli Rocks*, and *Cofano Bay*, all which lie to the southward of their route; this should be particularly observed with a northerly wind and carrying current. If bound to *Trapani*, having made *Maritimo*, they should steer for, and pass close by the north *Point of Levanso*, which is bold, taking an E. S. E. $\frac{1}{4}$ E. (*S. E. by E. $\frac{1}{4}$ E.*) course for the *Lighthouse of Combarara*, situated at the entrance of *Trapani*: you will thus pass over a foul patch of ground, lying nearly in mid-channel, and over which the least depth is $5\frac{1}{2}$ fathoms.

FAVIGNANA. This is an irregularly formed *island*, about 14 miles in circumference, and having a remarkable mountain running through its centre, from north to south, but its shores are generally low: the population, including the garrison and convicts, is about 3000. *Favignana northern point*, *Point Faraglione*, lies from

the *Castle of Maritimo* E. by S. (*E. S. E. $\frac{1}{2}$ S.*), distant 11 miles. About $1\frac{1}{2}$ mile from *Point Faraglione*, to the southward, is the *Port*, a fine *cove*, having on its eastern side the *Town of San Leonardo*, and also a small *fortress*, called *St. Giacomo*. On the summit of the high land is the *Castle of St. Catharine*, which commands the *roadstead*, and is considered to be impregnable. There is a *telegraph* upon it, which communicates with one on *Maritima*; and at the eastern side is another, called *San Leonardo*. The soundings in the *port* gradually decrease from 6, to 4, 3, and 2 fathoms; but it is quite open to the northward. At the N. eastern end of the island is *Cala Rosa*, where, for small vessels, there is a good berth with from 20 to 7 fathoms: a moderate supply of vegetables, fruit, and water may be obtained here, and you may take advantage of any wind for either coming in or going out. *Favignana* derives a considerable revenue from its tunny and anchovy fisheries, its quarries of stone, and its sale of sheep, goats, and poultry: the island abounds in game, and hares and rabbits are plentiful; fish also is cheap, and in great quantities. The *Castle of Favignana* is in latitude $37^{\circ} 56' 36''$ N., and longitude $12^{\circ} 17' 45''$ E.

BANKS OF ST. CATHARINE. To the southward of *Favignana*, at the distance of from 2 to 4 miles, lie two distinct *banks*, divided by a channel one mile broad: on the southern one are 17 and 18 fathoms, but on the northern one only $3\frac{1}{2}$, 5, and 9 fathoms, rocky ground: the former of these depths is near its northern edge, *St. Catharine's Castle* bearing N. $\frac{1}{2}$ E. (*N. by E. $\frac{1}{2}$ E.*).

LEVANSO is about 3 miles N. E. $\frac{1}{2}$ N. (*N. E. by E.*) from *Favignana* northern point; it is high, of rugged appearance, and, with the exception of two or three little spots, wholly inaccessible. Its circumference is nearly 6 miles, and its produce is chiefly faggots from the stunted woods; these are exported to *Sicily*. There are but few residents, who cultivate a little grain and fruit: they have also some sheep and goats on the island; but all round, and particularly on its southern side, near the *Sugar-loaf rocks*, there is excellent fishing.

FORMICHES. These are two low, barren, rocky *islets*, lying at the distance of nearly a league E. $\frac{1}{2}$ S. (*E. S. E.*) from the S. East Point of *Levano*; they are separated from each other by a channel half a mile wide. The western one is a barren rock, but the eastern one is half a mile broad, and covered with stone buildings, being storehouses for the tunny-fish: there are also a *tower*, a *chapel*, and a *village*, inhabited principally by fishermen, with a cistern for fresh water. Towards the S. E. is a kind of *Bay*, within which a few vessels may ride in safety. About one-fifth of a mile from the southern side of the southern *Formiche* is a small *knoll* of only 3 fathoms water; and to the north-eastward of the *castle* is another rock under water: it is distant about half a mile from the N. E. point of the island, and has over it 13 feet. The channel between the two *Formiches* may be passed in fine weather, but there is a *shoal* of $2\frac{1}{2}$ fathoms lying nearly mid-channel; therefore it will be better not to adopt this passage, but go on their western side, where there is deep water. Captain Smyth says, that "in a central situation, between *Favignana*, *Levano*, and *Formiche*, is an eligible situation for a fleet to rendezvous, with excellent anchorage in 21 fathoms, muddy ground, and just off the gravelly bottom; the greater *Formiche* bearing N. E. $\frac{1}{2}$ E. (*E. N. E.*), the *North Point of Levano* N. by W. $\frac{1}{4}$ W. (*N. $\frac{1}{2}$ W.*), and *St. Catharine's Castle*, in *Favignana*, W. S. W. $\frac{1}{4}$ S. (*W. by S.*)."

PORCELLI, or THE PIGS. This is a dangerous reef, lying at the distance of $4\frac{1}{2}$ miles E. by N. (*E. $\frac{1}{2}$ S.*) from *Point Grosso*, the northern Point of *Levano*, and N. W. (*N. N. W. $\frac{1}{2}$ W.*) from the *Lighthouse of Trapani*; it is steep-to on all sides, there being 17, 12, and 8 fathoms, and the next east scarcely one foot water: the water breaks over it, and many points of the reef are visible above water. Between the outer *pinnacle* on the north, and the main body of the *shoal*, is a *swash-way* of 6 or 7 fathoms, in which a fishing-boat may moor in fine weather; but no other vessels should approach the danger.

N. W. (*N. N. W. $\frac{1}{2}$ W.*) from *Point Grosso*, distant nearly 6 miles, is the *Secca di Pesci*, a bank of 15, 20, 27, and 29 fathoms, but no danger; and W. $\frac{1}{2}$ S. (*W. by N.*) from the *Sugarloaf of Levano*, distant $3\frac{1}{2}$ miles, is another, with 7, 9, 10, and 14 fathoms; nearly N. W. by N. (*N. by W. $\frac{1}{2}$ W.*) from this latter is a spot with 14 fathoms: these will be seen by referring to the Chart, where they will appear with deep water all round them. There is also another *shoal*, called *Wilkinson's Bank*, which lies about W. S. W. (*W. $\frac{1}{2}$ S.*), distant $11\frac{1}{2}$ miles from *Maritimo*; the least water on which is 27 fathoms, coral rocks: near it are 90, 105, and 109 fathoms, and no danger whatever.

KEITH'S REEFS, AND SKERKI ROCKS. These dangers, lying midway between the *Island of Sicily* and the *Coast of Tunis*, were first discovered by *Captain Durban*, in *H. M. S. Weasel*, in 1802; and since explored by *Captain William Henry Smyth*, in 1821, by whose surveys they appear to be situated on the northern edge of a great *Bank of Soundings*, which extends all the way from the *Island of Maritimo* to *Cape Bianco*, near *Bizerta*: this *Bank*, with the respective depths of water upon it, will be clearly explained by a reference to the *Chart*.

The *Skerkis* consist of *two reefs of rocks*, occupying a space of $3\frac{1}{2}$ miles, and lying N. N. E. and S. S. W. (*N. E. $\frac{1}{2}$ N. and S. W. $\frac{1}{2}$ S.*) from each other, their breadth being about one mile. They are in about latitude $37^{\circ} 46' 0''$ N., and longitude $10^{\circ} 47' 0''$ E. The northern reef bears from the north-west point of *Maritimo W.* by S. $\frac{1}{2}$ S. (*W. $\frac{1}{2}$ N.*), distant 61 miles; from the *Island Galita E.* by N. (*E. $\frac{1}{2}$ S.*), 94 miles; and from *Cape Bon N.* by W. $\frac{1}{2}$ W. (*North*), 43 miles. The two reefs are separated by a channel a mile broad, and surrounded by a bottom of sand. On the *southern reef* are 3 fathoms; but on the *rocks* there are no more than 9 feet. The sea around them is always so clear, that you may see the ground in 20 and 25 fathoms. The depth of water on the *northern reef* is from 10 to 14 fathoms.

The *middle of Keith's Reef* is in latitude $37^{\circ} 50' 0''$ N., and longitude $11^{\circ} 9' 0''$ E., and is a most dangerous object to vessels passing towards *Malta* and to the southward of the *Island of Sicily*. It lies nearly E. and W. (*E. S. E. $\frac{1}{2}$ E. and W. N. W. $\frac{1}{2}$ W.*), its extreme length being about $2\frac{1}{2}$ miles, and its breadth nearly one mile. The east end is in *some parts dry*, while the west end has from $2\frac{1}{2}$ to 4 fathoms over it. The body of this reef is composed of *large rocks*, on which, with a swell of the sea, the water *breaks high*. There is a little sandy shoal at its eastern end. Deep water is all round it, for to the northward and southward are 30 and 60 fathoms. The east end of this reef bears from the N. W. end of *Maritimo W.* by S. $\frac{1}{2}$ S. (*West*), distant 42 miles; from *Cape Spartivento, in Sardinia, E. S. E. $\frac{1}{2}$ S. (S. E.)*, 130 miles; and from *Cape Bon N.* by E. (*N. N. E. $\frac{1}{2}$ E.*), 45 miles. About midway between *Keith's Reef* and the *Skerkis* is a *small bank* of 15 fathoms, near which are 35 and 60 fathoms; and further from it, both northward and southward, it becomes a deep sea.

PANTELLARIA. The *Island Pantellaria* is not one of the *Ægean Islands*, but is introduced here from its proximity to the western part of the *Island of Sicily*. It was formerly named *Cossyra*, and lies nearly on the meridian of *Maritimo*, its centre being in latitude $36^{\circ} 48' 0''$ N., and longitude $11^{\circ} 58' 0''$ E. This is a dependency of *Sicily*, and measures about 30 miles in circumference, being completely of volcanic origin, and exhibiting the vestiges of craters, with abundance of lava, pumice, scoria, and pozzolana, hot springs, vapour stoves, and grottoes formed by corrosion. The interior is divided into broken hills covered with brushwood, ravines, and valleys; these the natives cultivate with olives, figs, vines, cotton, and vegetables. A considerable quantity of orchilla for dyeing is also collected here: their fruit is good, and the raisins considered to be the best and cheapest in the Mediterranean. Corn is imported from *Sicily*. The population is estimated at 5000.

In moderately clear weather this *island* may be seen 15 leagues off: its summit is near the centre, from whence it slopes down on all sides, but the east is much higher than the west end. Within this summit are the remains of a crater, now forming a lake of unfathomable water; it is situated about 4 miles inland, the road to which is exceedingly narrow and difficult all the way to the top of the hill, descending thence downward, by perpendicular cliffs of 80 and 100 feet, to the lake. The lake is enclosed by a wall of stone. On the declivity upon one side, opposite to the point of ascent, is some finely cultivated land, with buildings on the ridges, and farmhouses: beneath is a tract of dark soil, regularly walled in, having at its northern end a pool, about 6 feet in circumference, the water of which boils, and has a sulphureous brackish taste. On the opposite side are some cotton-fields. Here the plantations of figs, grapes, currants, &c. are prepared for exportation.

The *Town of Pantellaria*, with its *Castle*, is situated at the head of a cove on the N. W. side of the *island*, but exposed to a ground swell: the town is large, but poor, having a huge church, a prison, several chapels, and a Capuchin convent; yet the harbour is convenient for the exportation of wine, oil, cotton, orchilla, raisins, and some alum; but from the harbour to the eastward it has a barren rocky appearance. Water and other necessities may be procured here, though not in abundance. The northern coast of the *island* is terminated by two coves, *Cala Tramontana* and *Cala Levante*; these are separated by the point of an isthmus, off which lies a high rocky islet, having a deep channel between them. The east and south coasts

consist of steep and inaccessible cliffs, with basaltic coves at their base, to which innumerable quantities of wild pigeons resort.

To sail into the *Port or Harbour of Pantellaria*, bring the *Castle* to bear S. E. (S. S. E. $\frac{1}{2}$ E.), distant 2 miles, where you will find a depth of 18 fathoms, sandy ground; but should you advance nearer, you will have foul ground, and a chain cable must be used. The entrance of the *port* is guarded by two *batteries*: that on the eastern point is called *St. Leonardo*, and that on the western side *Santa Croce*. From this latter a *reef of rocks* extends north-easterly about 400 yards; upon this there are several above water, which contract the channel, and render the passage only 50 fathoms wide. As you enter, you will have 3 and $2\frac{1}{2}$ fathoms, and small vessels commonly lie opposite the *castle or prison*: the landing-place is at a little pier to the eastward of the *castle-wall*, and the *Pratique* is at the *Cove of St. Leonardo*, near the northern part of the *harbour*, whence the Officers of the Health Office repair to meet your boat. There are several other places of landing about the western shore of the *island*, which may be approached by the lead; but care must be taken, and a berth given to its southern part, for off *Point Nica*, which is the S. W. point of the *island*, there is a rock under water, having 5 fathoms, and probably less water over it.

The *Castle of Pantellaria* is in latitude $36^{\circ} 51' 15''$ N., and in longitude $11^{\circ} 54' 29''$ E.

THE WESTERN COAST OF SICILY, FROM CAPE ST. VITO TO CAPE GRANITOLA.

Cape St. Vito, in latitude $38^{\circ} 12' 26''$ N., and longitude $12^{\circ} 45' 58''$ E., has been already described (See page 123). From the N. western part of this *Cape to Cape Cofano*, the course and distance are S. S. W. $\frac{1}{2}$ W. (S. W.), $5\frac{1}{2}$ miles; the land between runs in more easterly, and forms the *Bay of Calazzi*, where vessels may find shelter during south-easterly gales; the ground is clean, and the water deep. Towards the northern part is the *Tower of Lucchesi*, and a little southward of that a small sandy cove, called *Soultella*. *Cape Cofano* is the extremity of a rugged conical mountain with a tower upon it; on its north-eastern side are a large farm, and a tunny fishery, called *Tonnara*, opposite to which is the little *Island Vermia*. Behind this island there is secure anchorage for the vessels employed in the fishery.

About 5 miles W. S. W. $\frac{1}{2}$ S. (W. by S.) from *Cape Cofano* is *Point Emilia*, a low tongue of land, with a small sugarloaf peak upon it, over which, to the southward, stands the high *Mount of St. Julian*, formerly *Mount Eryx*, 2175 feet high, on which the Temple of Venus stood. There are still a few vestiges of this magnificent building; but it now is the site of *Old Trapani*, with about 8000 inhabitants: the wall which surrounds it is in a state of decay; it has square turrets, and a high tower to the westward; also a Saracenic castle with battlements at its eastern angle. To the S. Westward of the town is a spring of pure water, which supplies an aqueduct running into the *Town of Trapani*. A little to the eastward of the point is the *St. Helena Tonnara*, and further on the *Village of St. Pietro*, and the *Tower of Foggia*. About *St. Pietro* a shoal begins, which continues round *Point Emilia*, and runs along the shore all the way to *Trapani*; this shoal runs out a full mile to the northward (N. N. E.) of the *Point*, and must have a considerable berth in passing. West (W. N. W. $\frac{1}{2}$ W.) from *Point Emilia*, distant 2 miles, is the large barren *Islet of Asinello*, between which and the main there is a good passage with from 6 to 16 fathoms water.

From *Point Emilia* to *Point Sigia*, the outer point of *Trapani*, the course and distance are S. W. by W. $\frac{1}{4}$ W. (W. S. W. $\frac{1}{4}$ W.) 5 miles: for more than 2 miles of this space the shores are rocky, but further south is the *Village of Cassimani*, surrounded with trees; about a mile beyond this is the *Point, Tower, and Tonnara of St. Julian*. In the first part of this distance the ground is foul; but from *Cassimani* to *St. Julian's Point*, and from that point to *Trapani*, are fine sandy beaches.

TRAPANI. This is a fortified city, built on a neck of land which projects into the sea, and forms an excellent harbour; it is a place of considerable importance either as a naval, military, or commercial position, being surrounded by a wall, and defended by bastions, ravelins, &c. The town is better built than most in Sicily, its streets are regular, and its public buildings numerous and elegant; its population is estimated at 25,000, amongst whom are the best artists, artificers, and sailors in all Sicily. Their exports consist principally of salt, soda, coral, and alabaster, which latter articles are brought from the interior, and by the natives sculptured into urns, vases, statues, and other works of fancy. The N. west point, called *Sigia*, has a tower upon it, and the ground about it is broken in several islets; the southernmost of these is called *Columbara*,

and has upon its inner end a *lighthouse*, in latitude $38^{\circ} 1' 53''$ N., and longitude $12^{\circ} 30' 18''$ E. Between *Sigia Tower* and the town is a handsome promenade; and the Marina is a good walk under the wall, and finished with a *mole*, on which is the *Pratique Office*. A little to the east of *Sigia Tower* are some broken rocks, called *Scoglia di Mal Consiglio*; these are low, craggy, and much-exposed. The entrance of the harbour is well protected by the *Tower of Sigia*, the fire from which is at a little distance crossed by the lighthouse battery at *Columbara*, which faces the south.

In sailing from the eastward for *Trapani*, you will see the *Town of St. Julian*, situated on the summit of a mountain. You may keep along shore until you have passed the *Cape Cofano*, when you should stand outward, in order to give the *Point of Emilia* a good berth; or, with a leading wind, you may direct your course from abreast of the *Tower of Agra* to the *Island Levanzo*, until the little *Asinello Islet* is abaft the beam, when you will stand on, passing through the channel between the *Porcelli* and *Consiglio Rocks* for the anchorage. Mid-channel there is a spot with only 5 fathoms water; but there is no danger, and there is deep water all round it. This inner channel is perfectly safe with a leading wind; but a sudden shift and set of the current may deceive a stranger, and the quarantine regulations may prevent him having the advantage of a pilot. The houses of *Trapani* will at a distance appear like so many sails; but you cannot fail recognising the *Town of St. Julian*. In running on, take care to avoid the *Porcelli Rock*; and when you are past the *Asinello Islet*, you will endeavour to bring the *Tower of Formiche* to bear S. W. (*S. W. by W. $\frac{1}{2}$ W.*): then round the *Consiglio Rocks* and *Point Segia* at the distance of somewhat less than a mile, by which you will avoid the *Ballata Ledge*, which lies on the edge of the shoal ground, and has only 9 feet over it. The *Rock of Columbara* may be approached to the distance of three-quarters of a cable's length, until you find yourself opposite to the *lighthouse*: large vessels will then bring the *lighthouse* to bear N. $\frac{1}{2}$ W. (*N. by E.*), and anchor.

Vessels of 200 or 300 tons may lie at the quay, just above the *Pratique Office*, having a fast under the walls, and an anchor laid out on the mud banks; but ships of great draught of water bring up near *Columbara* in from 8 to 10 fathoms, muddy ground. It is always customary with the native mariners to carry a fast on shore; but Captain Smyth prefers mooring with the anchors S. S. E. and N. N. W. The ground all over the *Bay* is much broken, and occasions strong counter-tides in fresh breezes, though they are never strong enough to prevent a ship beating against them.

Another channel to *Trapani*, either from the eastward or westward, is to be found by running from the northward for the *Island Levanzo*, and passing between it and the *Porcelli Rocks*: in so doing, you will sail along the eastern side of the island, at about a mile, or a mile and a half's distance, and shape your course for *Cala Rosso*, or the N. E. coast of *Favignana*, from whence you will steer E. N. E. $\frac{1}{2}$ N. (*E. by N.*) for *Trapani*, leaving the *Formiches* on your larboard side.

At night, or in thick weather, when coming from the westward, the passage between *Maritimo* and *Levanzo* should be preferred, as it is clear of all danger, although there are some overfalls of 7 or 8 fathoms, already noticed, which lie about 4 miles to the westward of the *Sugarloaf of Levanzo*. But the east and west coasts of *Favignana* are low, and not always visible on a dark night.

From *Columbara Lighthouse* the general tendency of the land is S. S. W. $\frac{1}{2}$ S. (*S. W. by S.*) to *Cape Boco*, the westernmost point of Sicily. The coast is altogether low, broken, and irregular, forming many islands, rocks, and shoals, which extend out a great way, and line the whole shore. Southward of *Trapani* there are extensive salt-works, and on the different points of land which project out, are the *Towers of Calara, Nubia, Mezzo, and Theodore*. At the back of the salt-heaps, which are collected for exportation, is the *Town of Paceo*, with a population amounting to upwards of 2000 persons; these are chiefly engaged in the salt-works, and in cultivating the plains adjacent, which produce wine, oil, corn, and barilla. Between the *Tower of Theodore* and *Cape Boco* is a cluster of low islands, commonly called the *Group of Stagnone*, which consist of the *Isles of Borrono, Favilla, Cernisi, and St. Pantaleo*; these are all connected by the salt-works, and defended by two towers. At *St. Pantaleo* are the vestiges of the ancient *Town of Motya*.

MARSALA. *Cape Boco*, in latitude $37^{\circ} 48' 10''$ N., and longitude $12^{\circ} 25' 10''$ E., is low land, over which stands the *City of Marsala*, of a square form, and surrounded by an old wall: the houses are well built, and the town is divided into two parts by a spacious street, called the *Cassaro*, in which are the cathedral and other public buildings; the population is said to be near 20,000, and its commerce in wine, fruit,

and barilla is very considerable. There was formerly a good harbour at this place; but in 1562 it was destroyed, to prevent the Turkish vessels taking shelter there. About a mile to the southward of the town is a small mole, forming between it and the beach a little port, with from 14 to 7 feet water in it, good stiff ground; but on the opposite side, the reefs running out from *Cape Boco*, are in many places even with the water's edge: to enter, you must bring the mole-head and the English Wine Establishment E. N. E. $\frac{1}{2}$ E. (E. $\frac{1}{4}$ N.) until the *Chapel of St. John*, which is of a circular form, and stands between *Marsala* and the outer point of *Cape Boco*, comes N. N. W. $\frac{1}{2}$ N. (N. $\frac{1}{4}$ W.); then drop anchor a little to the northward, and near the shore. The country to the northward of the *City of Marsala* is called *Terra Spagnoli*, and is composed of market gardens and vineyards, falling down with a gradual slope towards the smooth water enclosed by the *Group of Stagnone*. The ground all about *Cape Boco* is foul, and large vessels must lie to the S. westward of the *City*, in from 11 to 8 fathoms, about 2 miles off-shore; for the rocky bottom extends more than a mile out.

Vessels from *Trapani*, and bound through to the southward and eastward of *Favignana*, must first give the *Formiches* a good berth; thence steer away towards *Cala Rosso*, and pass about half a mile from *Favignana* in 10 and 12 fathoms water; or bring *Columbara lighthouse* to bear N. E. (E. N. E. $\frac{1}{4}$ N.), and steer out with it in that direction, by which you will avoid the *Shoals of Borroni*; and having brought the *City of Marsala* to bear S. S. E. $\frac{1}{2}$ E. (S. by E.), you may then pursue a southerly course, agreeable to your destination.

MAZZARA. From *Cape Boco* the coast runs S. S. E. $\frac{1}{2}$ E. (S. by E.) for 9 miles to *Point Feto*; the land between is mostly low, shoal, and rocky, and its inhabitants are principally fishermen. About two-thirds of the way is *Point Sibilitana*, upon which is the *Tower of Cacicavallo*; some rocks lie off the *Point*, and near 4 miles to the westward (W. N. W. $\frac{1}{2}$ W.) is a bank of 8, 9, and 10 fathoms, called *Slater's Bank*, from Lieutenant Slater, by whom it was first discovered.

Nearly E. S. E. $\frac{1}{2}$ E. (S. E. by E.), distant 3 miles from *Point Feto*, is the *Town of Mazzara*, small, but remarkable, from its number of churches and convents; its streets are dirty, narrow, and unpaved. The town is surrounded by an old Saracenic wall, with a Castle in a dilapidated state at its S. western angle, in latitude $37^{\circ} 39' 56''$, and longitude $12^{\circ} 33' 59''$ E.: nevertheless, it is a place of considerable commerce, exporting much wine, fruit, fish, cotton, pulse, grain, madder-roots, oil, soap, and soda; but there is no harbour. The entrance of the *River Salemi*, or *Halycus*, forms the little Port or Haven of *Mazzara*, which is convenient enough for boats and small craft, while larger vessels are obliged to ride in an exposed roadstead, in from 8 to 10 fathoms water. The best anchorage is in 10 fathoms, clay ground, $\frac{1}{2}$ mile from the shore, *Point Feto* bearing N. W. (N. N. W. $\frac{1}{2}$ W.); *Mazzara Citadel* N. E. by E. $\frac{1}{2}$ E. (E. by N.); and *Cape Granitola* S. E. $\frac{1}{2}$ S. (S. S. E.): you must not anchor nearer, on account of several overfalls, caused here by the fresh breezes, or what is called the *Marobia*, or *Drunken Sea*, which frequently prevails hereabout.

This *Marobia* is a singular movement of the sea, which Captain Smyth has described thus: "Its approach is announced by a stillness in the atmosphere, and a livid sky; when suddenly the water rises nearly 2 feet above its usual level, and rushes into the creeks with amazing rapidity; but in a few minutes it recedes again with equal velocity, disturbing the mud; tearing up the sea-weed, and occasioning a noisome effluvia: during its continuance the fish float quite helpless on the turbid surface, and are easily taken. These rapid changes generally continue from 30 minutes to upwards of 2 hours, and are succeeded by a breeze from the southward, which quickly increases to heavy gusts." The Captain thinks this phenomenon may be occasioned by a westerly wind blowing at some distance in the offing, towards the north coast of Sicily, and a S. E. wind, at the same time, in the *Channel of Malta*, the meeting of which would take place between *Trapani* and *St. Marco*, about 20 miles E. S. E. $\frac{1}{2}$ E. (S. E. by E.) of *Cape Granitola*; for it is to be observed, that the westerly wind most usually precedes, and the S. E. succeeds the *Marobia*.

From the *Town of Mazzara* the land runs to the southward to *Cape Granitola*, a distance of 7 miles. This *Cape* is a long, low, sandy projection, bordered by a dangerous reef, on which many vessels have been wrecked; for the shore being flat, cannot be seen in dark weather, before your vessel is upon the shoals; and the coast is rendered more dangerous by the currents, which, depending upon the winds, are uncertain, and by the *Marobia* before described. You may, however, perceive the little white *Tower of Caldara*, which stands on an elevation about $\frac{1}{4}$ mile to the northward of the *Cape*.

Captain Smyth says that ships should never approach *Cape Granitola* nearer than

2 miles; but should a vessel, by stress of weather or otherwise, get on the *shoals*, he particularly cautions the crew against attempting to land near the point, during a fresh breeze, it being shallow on its approach, and generally beat by a heavy surf, with a strong resurge. In such a case the boat should pull, at a prudent distance from the shore, to *Trefontani*, 2 miles to the eastward, if the wind is from the westward; or to *Cala Dajolo*, 2 miles to the northward, if the wind be from the eastward: from either of these places there is no difficulty in communicating with *Maxxara*.

Cape Granitola is the south-western point of Sicily, and lies in latitude $37^{\circ} 33' 57''$ N., and in longitude $12^{\circ} 36' 39''$ E.

THE SOUTHERN COAST OF SICILY, FROM CAPE GRANITOLA TO CAPE PASSARO.

From *Cape Granitola* the coast runs E. S. E. $\frac{1}{2}$ E. (*S. E. by E.*) to *Cape San Marco*, a distance of $19\frac{1}{2}$ miles; the land between bends in circularly, and forms a kind of *Gulf*, or *Bay*, generally known by the name of *Tre Fontainé*: it has regular soundings, and is easy of access, but affords no shelter, except for small craft, at a place called *Port Palo*, about 13 miles from *Cape Granitola*. Nearly midway between *Granitola* and *Palo* is *Selinuntum*, the ruins of the ancient *Selinus*, appearing at a distance like a large city: hereabout is a fishery for anchovies and sardinas. The country about *Selinuntum* is covered with dwarf palms, wild olives, and abounds with game, being very little cultivated.

Cape San Marco is an abrupt forked point, of reddish colour and moderate height, having a *square tower* on its summit, and a *shelf of rocks* at its base, but you may safely approach to within a small distance of it by the lead: the *tower* is in latitude $37^{\circ} 29' 15''$ N., and longitude $13^{\circ} 0' 20''$ E., and forms the western point of the *Bay of Sciacca*.

SCIACCA. From *Cape San Marco* the course and distance to *Cape Bianco* will be E. S. E. $\frac{1}{2}$ S. (*S. E.*), 14 miles; the land between forms a long *Bay*; and about a league to the eastward of *San Marco* is the *Town of Sciacca*, having a population of 11 or 12,000. This is one of the principal landing-places on the south coast of *Sicily*; the town rises up from the sea, and is surrounded by an ancient irregular wall, having a *castle* at its eastern angle, and a *bastion* or two to the seaward. Although a large town, with many churches, convents, and magazines, yet it is a poor place; the country around appears to be luxuriant, and there is a considerable commerce, their exports being chiefly fruit, corn, anchovies, barilla, and sulphur. Here are baths long held in great estimation; these are supplied from two rivulets to the eastward of the town, the water issuing from a white saline rock in two distinct streams; one of these is hot and sulphureous, 126° of Fahrenheit, the other $59\frac{1}{2}$, impregnated with the saline quality of the rock. Here also, on the insulated hill, are the steam baths of *Dedalus*, which have been in use above 3000 years.

The *Bay of Sciacca* is open to all winds from the S. E., by the south, round to the west, so that the anchorage can only be resorted to in fair weather. Ships, in summer, frequently ride off the town, about a mile out, in from 7 to 12 fathoms: boats and flat-bottomed vessels are hauled up on the beach. The best anchorage will be with *Cape San Marco* bearing W. N. W. $\frac{1}{2}$ W. (*N. W. by W.*); *Sciacca Castle*, North (*N. by E. $\frac{1}{2}$ E.*); *Christauro Tower* E. $\frac{1}{2}$ N. (*E. by S.*); and *Cape Bianco* S. E. by E. (*S. E. $\frac{1}{2}$ S.*).

Cape Bianco is a white promontory, in latitude $37^{\circ} 22' 25''$ N., and longitude $13^{\circ} 16' 27''$ E.; it rises about 90 feet, and has a *shoal* running out one mile and a half towards the south. Between it and *Sciacca* is an extensive plain, watered by several rivulets, in some of which is plenty of fish. The coast is protected by several *towers*, and the ground excellently cultivated; but the land in the interior, at the back of the plain, is high and rugged. About 4 miles inland, and to the eastward of *Cape Bianco*, is the *Village of Monte Allegro*, situated on a hill, a very poor place, and of little note; $\frac{1}{2}$ miles from the *Cape* are the *Point and Tower of Felice*, near which is a small river running up to *Seculiana*.

SECULIANA is a large town, with 4 or 5000 inhabitants; it is pleasantly situated a little distance inland, upon two hills, but the country about is barren and unhealthy: there are mines here, from which great quantities of sulphur are obtained. The quay and landing-place are on the west bank of a little river, called the *Canna*, before which, at the distance of half a mile from the shore, is a rocky shoal, which stretches along the coast, and has from 1 to 3 fathoms over it, with 3 fathoms sand inside. Large vessels

commonly anchor about $1\frac{1}{2}$ mile from the shore, having from 7 to 10 fathoms water, sand and clay, with large pebbles, which cut and damage the cables; but those of from 180 to 250 tons, can take their opportunity to cross the reef, and moor securely within it. In settled weather, and the lading ready, a vessel may ride, about $1\frac{1}{2}$ mile off-shore, in 9 fathoms, muddy ground, *Cape Bianco* bearing N. W. $\frac{1}{2}$ W. (N. W. by N.); the *Torre Felice* N. $\frac{1}{2}$ E. (N. by E. $\frac{1}{2}$ E.); *Seculiana Castle* N. E. by N. (N. E. $\frac{1}{2}$ E.); and *Rosso Tower* E. $\frac{1}{2}$ S. (E. S. E.), distant 2 miles.

To the south-eastward of the *Bay of Seculiana*, within the distance of $2\frac{1}{2}$ miles, the coast is without any hidden dangers; but there are two brownish red points with rocky bases, and the *Towers of Rosso* and *Rosello* upon them, which have a sandy cove between them; a mile outside of these there are 6 and 7 fathoms.

GIRGENTI. About $3\frac{1}{2}$ miles E. by S. (E. S. E. $\frac{1}{2}$ S.) from *Rosello Tower* is the *Caricatore*, or landing-place of *Girgenti*: this mole was only constructed in 1756, yet appears much corroded and worn. Its entrance is towards the east: here are about 100 houses, with extensive magazines of corn; also a prison; and on the *Mole-head* is a *lighthouse*: another also is erected upon the cliff, but neither of these are properly attended to.

The *City of Girgenti* stands on the side of a hill, 1200 feet above the level of the sea, and so built that every house can be seen: it is situated full 3 miles inland, and to the north-eastward (E. N. E. $\frac{1}{2}$ N.) from the *Mole*; its population is estimated at 15000: the streets are dirty, and have a mean appearance; but the cathedral is large. To the eastward of the *City* is a high rocky mountain, called *Rupa Athanea*; below which, towards the sea, is the site of the ancient *Agrigentum*, containing many vestiges of its ancient magnificence. The principal space which formerly was occupied by this *City*, is now converted into orchards and gardens, adorned with groves of olive and almond trees: the *River Girgenti*, now called *Acragas*, dividing into two branches, runs by its sides.

Five and a half miles E. S. E. $\frac{1}{2}$ S. (S. E.) from the *Mole of Girgenti*, is the entrance to the *River Naro*, the ancient *Hypsa*: this, as well as the *Girgenti River*, is much encumbered with shoals. Opposite to the entrance of the *River Naro* is a dangerous *sunken rock*, called the *Peril Rock*, having only 4 feet water over it, though at the distance of a few yards off, there are 6 and 7 fathoms on all sides: it lies with *Rosso Tower* over a white cliff to the westward, and the round white tower of *Pala* E. S. E. $\frac{1}{2}$ S. (S. E. $\frac{1}{2}$ E.), distant 3 leagues. About 3 miles S. E. $\frac{1}{2}$ E. (S. E. $\frac{1}{2}$ S.) from the *Peril Rock* is *Point Bianco*, off which are two rocks above water: the largest of these is called *Patella*, between which and the main is a channel half a mile broad, with 7 fathoms water in it. Should you pass through this channel, take care to keep in the middle of it, for there are many *sunken rocks* and spots of *shoal water* round about the *Cape*.

S. S. E. $\frac{1}{2}$ S. (South) of the *Mole-head*, distant 4 miles, is the *Melville Shoal*, which is right in the way of, and must be carefully avoided in going to the anchorage: it is near half a league long, and lies E. S. E. and W. N. W. (S. E. $\frac{1}{2}$ E. and N. W. $\frac{1}{2}$ W.), having on its shoalest part from $3\frac{1}{2}$ to 5 fathoms, deepening regularly to 10, 12, 13, and 15 fathoms in every direction. The mark for it is the *Mole Tower* in one with the upper *Lighthouse*; *Rosello Tower* open to the eastward of *Rosso*; and the central part of *Girgenti* N. by E. $\frac{1}{2}$ E. (N. E. by N.). Between *Melville Shoal* and the *Mole-head* there is good anchorage in from 7 to 10 fathoms, sand and clay; and though vessels will ride exposed to all winds from the W. N. W. round by the southward to S. E., yet no ordinary gale need excite apprehension. The following bearings will give you a command of the head of the *Mole*, in case of a S. W. wind, though it is further out than a vessel need place herself in the summer season:—*Rosello Tower* W. N. W. (N. W. $\frac{1}{2}$ W.); *Mole Prison Tower* N. $\frac{1}{2}$ E. (N. by E. $\frac{1}{2}$ E.); the middle of *Girgenti* N. E. $\frac{1}{2}$ N. (N. E. by E. $\frac{1}{2}$ E.); and *Point Bianca* S. E. by E. (S. E. $\frac{1}{2}$ S.) distant $6\frac{1}{2}$ miles. The *Mole* is very convenient, having a good watering place in the middle, and mooring-posts all round, terminating with the *Battery* and *Lighthouse*: its depth cannot always be depended upon, because southerly winds drive in great quantities of sand, which 200 or 300 convicts are constantly employed in removing again. but usually at the *Mole-head*, and the inner part of the southern arm, there are $2\frac{1}{2}$ and 3 fathoms, decreasing rapidly towards the centre, where, near the shoal part which stretches along the shore, there are only 11 and 9 feet. When going in, you should assure yourself of getting a berth, for the port is small, and being the only one on the southern Coast of Sicily, it is generally crowded. Should there be room, set as much sail as you can until the moment you anchor; for the wind and current being acted upon

by the *Mole-head*, will often occasion a vessel to drift out again. Then, if the weather permit, send a hawser to make fast to the mooring-post at the *Mole-head*, and take it on board as soon as the vessel is rounding it, to prevent her going upon the shallows.

By a Port Regulation, when vessels arrive, the first that delivers her ballast, and takes in any portion of her cargo, must be completely loaded before another is commenced, which regulation is highly advantageous to those who frequent this place. The *Mole Lighthouse* is in latitude $37^{\circ} 15' 39''$ N., and longitude $13^{\circ} 31' 40''$ E.

About 2 miles to the south-eastward of *Point Bianco* is the outer point of *Monte Chiaro*, on the summit of which is a castle; and at its base is a continued line of rocks, which always breaks, and renders landing hereabout almost impossible.

PALMA. Two miles inland, and about 3 miles from *Monte Chiaro Castle*, is the *Town of Palma*, the inhabitants of which carry on a considerable traffic in almonds and sulphur. In this little bay is the *Marina of Palma*, with some magazines and a tower: vessels ride off this place in from 5 to 8 fathoms water; the ground holds well, but there is no security from southerly winds. The round white *Tower of Palu* is a good mark for this coast. The population of *Palma* is estimated at 8000. S. E. by S. (*S. by E. $\frac{1}{2}$ E.*), distant one mile and a half from *Palma*, is *Point Tenda*: and to the E. S. E. $\frac{1}{2}$ E. (*S. E. $\frac{1}{2}$ E.*) of *Tenda* is *Point Rosa*, off which is a bank with 7 fathoms water, but quite clear of any danger, there being only some slight overfalls. The centre of this bank is nearly on the meridian of the *Tower of Palu*. Here you will see the little semicircular *Bay of Grugno*, the outer points of which are near a league asunder, the coast within them forming a sandy beach. Here is the *River Ciotta*, with its bar: to the eastward of this river is the *Tower of Grugno*, with some magazines at its base; and about a mile to the eastward is *Port Nicolo*, formed by a rocky islet and the main, to which it is connected by a slip of land; here small craft find anchorage in from 4 to 2 fathoms. The land hereabout may be approached with perfect safety. From hence runs an extensive plain, called *Serrata*.

ALICATA. The *Town of Alicata* is in latitude $37^{\circ} 4' 3''$ N., and longitude $13^{\circ} 55' 54''$ E., and bears from *Point Tenda*, the south-eastern Point of the *Bay of Palma*, E. S. E. $\frac{1}{2}$ E. (*S. E. $\frac{1}{2}$ E.*), distant 9 miles. The ground about *Alicata* is shallow and rocky; there are two forts, but the walls are in a ruinous state, neglected, and lying in large fragments on the beach; yet the town is a place of some commerce in the summer season, for the exportation of grain and sulphur. Captain Smyth says that "in no part is the want of a port so severely felt as at *Alicata*, although there is every local advantage for forming one with facility, and at a moderate expence, as the two reefs of rocks off the west end of the town could easily be converted into excellent moles," &c. To the westward of the port is the *Hill of Ecnomus*; and on the N. E. side of the town is the *River Salso*, one of the largest rivers in *Sicily*, over which is a bridge forming one archway; and on its eastern bank is the *Fonducello Hillock*. The usual anchorage is about a mile to the S. westward of the town, in from 7 to 12 fathoms, clayey ground, but exposed to all winds from the west, by the south, to east. In coming here you should stand in by the lead, and bring the flagstaff of the *Sea Castle* to bear well to the eastward of the *Fonducello Hillock*, dropping your anchor as near as possible to the following bearings, buoying up your cables in light winds, to prevent their chafing: *Palu Castle* N. W. by W. (*N. W. $\frac{1}{2}$ N.*); the upper *Castle* N. by W. (*N. $\frac{1}{2}$ E.*); the *Sea Castle* N. E. (*N. E. by E. $\frac{1}{2}$ E.*); and *St. Nicolo Rock* E. N. E. (*E. $\frac{1}{2}$ N.*), distant $4\frac{1}{2}$ miles: here you will lie in 8 fathoms, muddy bottom, and about one mile from the beach. The *River Salo* has a bar at its entrance, which shoals for above a mile, over which the surf beats heavily, especially with southerly winds: boats can go up the river, but the passage is narrow and difficult.

TERRA NOVA. The coast now winds circularly towards *Terra Nova*. The first part of this space forms the beach of *Foggitella*, which terminates at the rocky head of *S. Nicolo*; beyond this is the *Point of Falconara*, distinguished by a large square tower, a few magazines, and a villa, near which are some beautiful grounds; and from hence about 4 miles, you will see, over a projecting point, the *Torre di Manfra*: near the whole way is an open beach. The *Town of Terra Nova* is in latitude $37^{\circ} 2' 54''$ N., longitude $14^{\circ} 15' 0''$ E., and built upon a flattish hill, the neighbourhood abounding with corn: its situation is excellent, but the streets are irregular and dirty: there is a handsome palace, but no other remarkable structure. The population is about 9 or 10,000, who carry on a considerable trade in sulphur, wine, corn, and coarse cloths, which latter article is principally sent to the inland market of *Caltagirone*. The anchorage is opposite to, and about a mile from, the town, in 7, 8, 9, 10, and 11 fathoms, sand and mud; but, like all those on this

coast, quite exposed to the southern winds, which never fail sending in a heavy sea you will therefore be obliged to watch every shift of the wind, for when it blows fresh, there is not room enough to get under way, and make sail. Small vessels off the western end of the landing-place, under the *Torre dell Insegna*, which stands upon the high land, at a small distance from the town.

About 7 miles S. E. by E. (S. E. $\frac{1}{2}$ S.) from the *Caricatore* (landing-place) *Terra Nova*, is the entrance to the *River Drillo*; and 3 leagues S. E. by S. (S. by E. $\frac{1}{2}$ E.) from *Drillo*, is the *Village of Scoglietti*: there are considerable magazines situated on the side of a rocky bay, entirely open to the westerly and southerly winds, which do much mischief in the vicinity: here are a good landing-place and a small river. One mile and a half to the southward of *Scoglietti* is a little cove, on the southern side of which formerly stood the *Town of Camarina*, now extinct: the eastern side of this cove is a marsh, through which a stream runs to seaward. Three miles beyond this is *Point Bracetta*; and further on S. $\frac{1}{2}$ W. (S. S. W.) is *Cape Scalambra*, which is a small and rocky projection: a reef extends all along this coast, which has been fatal for ages, but it may be approached by the lead, and guarded against with only a little care and attention. Vessels passing here should never come into less than 14 fathoms water; and, with westerly winds, make a proper allowance for the currents, &c.

On the eastern side of *Cape Scalambra* is *Port Secca*, of use to vessels drawn only a little water, being secured against a south-wester by a long low rock which lies off the *Cape*; but it is difficult of access when the wind is blowing fresh, owing to the heavy overfalls there are on the coast. To the eastward of *Port Secca* are the little sandy coves of *Mazzarella* and *Donna Leucata*, to which the coasters and craft are accustomed to repair for cargoes; and in these the carubba or locust tree, wood, charcoal, and other produce of the coast are embarked. Here, inland, by the side of a small rivulet, is the *Town of Scicli*. E. S. E. $\frac{1}{2}$ E. (S. E. by E.) from *Cape Scalambra*, distant 8 miles, is the rocky *Point of Spina*, being the termination of an elevated and broad headland, in latitude $36^{\circ} 44' 0''$ N., and longitude $14^{\circ} 39' 0''$ E. Here the coast again becomes rocky, and continues further East (E. S. E. $\frac{1}{2}$ E.) to *Pozzallo*, the principal landing-place for the produce of this part of the country: here there is fair anchorage during the summer season, with a small pier, magazines, a palace, and a church; also a fortress with a garrison. The village has a good appearance, and provisions can be obtained at moderate prices. Before you reach this place, you will see, between *Point Spina* and *Pozzallo*, the little *Cove of San Pietro*, where, on a rocky point, at the end of a sandy beach, is a landing, and a village with about 300 inhabitants. There are also, within the above space, two rocky points of land, called *Corvo* and *Gregorio*.

Proceeding easterly, about 5 miles from *Pozzallo*, you will pass the rocky *Point Figal*, and the *River Busaidone*, when you will arrive at the *Tower and Oratory of Rosalini*. Up the country is the *Town of Spaccaforro*, encircled with a wall, and having a population of 8000, with numerous churches, convents, and other public buildings. The principal commerce of this town consists in the exportation of grain, flax, casheas, acorns, soda, and cattle to Malta.

Two miles to the southward of *Rosalini* is *Point Grotta*; a mile to the westward (W. N. W. $\frac{1}{2}$ W.) of which is a cluster of flat rocks, called *Porri*, having a species of wild leeks growing upon them; and to the southward of *Point Grotta* there is a narrow strait, the extremity of which is marked by having the two *Chiappe Rocks* upon it. Between these rocks and those of *Porri* there is a good channel with 8, 9, and 10 fathoms water in it; and there is no danger in nearing the *Porri Rocks*, in day-time, by the lead. A little to the eastward of *Grotta Point* is the small shallow bay of *La Marza*, where charcoal and wood are embarked. Near the centre of this place is a spring of fresh water rising out of the sea, and at its eastern point is the *Village of Castelluccio*.

To the southward of *La Marza*, distant nearly 2 leagues, is *Cape Passaro*, the southernmost point of *Sicily*, off which lies *Current Island*: this is a sand-stone rock, divided from the main by a ridge of very shallow water, over which not even boats can pass in safety. On the N. eastern side of this island is a sort of natural mole, where the Maltese trading boats sometimes run into for shelter. To the northward of this is *Fontanelle Cove*, with regular soundings, sand and mud: this extends all the way to *Point Formiche*, a low white cliff, off which five black rocks appear, just above the surface of the water, while a reef borders the shore so far as *La Marza*: this extends from the land nearly one mile, and has over it in many places from 6 to 2 fathoms water. Within *Fontanelle* is a lesser cove, running in between some white cliffs, where the remains of some ancient sepulchres; the vicinity is low, marshy, and neglected.

but naturally in many parts extremely fertile, being overrun with a profusion of heaths, myrtles, fan palms, capers, and junipers; and infested with many singular insects and reptiles.

From the extremity of *Current Island*, *Cape Passaro* bears N. E. by E. $\frac{1}{2}$ E. (E. by N.), distant 4 miles. The coast between them is bordered with a reef one-third of a mile broad.

THE EASTERN COAST OF SICILY, FROM THE FARO OF MESSINA TO CAPE PASSARO.

The *Faro Point of Sicily* is in latitude $38^{\circ} 18' 50''$ N., and longitude $15^{\circ} 40' 40''$ E.; it is low and sandy, having the *Pelorus Lighthouse* on its eastern extremity (200 years old). It is built upon the ruins of an ancient tower, and is strongly fortified. On the *Point* are two *Batteries* and two *Martello towers*, commanded by the *Telegraph Redoubt*, which is situated on a hill about a mile and a half to the westward of the *Lighthouse*. The *Village of Faro* is a quarter of a mile to the S. westward of the *lighthouse*; it is small, and produces the far-famed *Falernian wine*. Between the *beach*, and *hills* on the eastward and southward, are two *lakes*, united by a *canal*, which, from their figures, are commonly called the *Long* and the *Round Lakes*, said to produce the best eels and cockles in Sicily.

From the *Pelorus Lighthouse* the land runs circularly in towards the *City of Messina*, which bears from the *Light* S. W. (W. S. W. $\frac{1}{2}$ S.), distant 7 miles: the shore forms a low sandy beach, with lofty mountains inland. There are many *forts* and *batteries* within this space, and also the *Towns* and *Villages* of *Ganziri*, *S. Agata*, *Grotta*, and others.

STRAIT OF MESSINA. In making for the *Strait of Messina*, when coming from the northward or westward, strangers should be particularly careful not to mistake the entrance, and run upon the *Coast of Calabria*, between *Sylla* and *Cape Vaticano*, this having proved fatal to many vessels, as it forms the most dangerous lee-shore in the *Mediterranean*. There are two *table lands* resembling each other, to the south of the *Bight of Vaticano*; and it is between the two that the entrance to the *Strait* is to be found.

The following Description of the Faro, or Strait of Messina, and its Currents, with Directions for navigating therein, is by Mr. Swan Blyth, several years Master of H. M. S. Bittern, on that Station.

"The *Coast of Calabria* is very high; so is the *Coast of Sicily* to within a mile or two of the north end of the *Faro*, which is low. On the *Faro Point* stand a *Fort* and *Lighthouse* close by the sea-side: to the southward are a few *fishermen's cottages* where they haul their boats up. Before these houses, and about a mile to the southward, towards *Messina*, the beach is very steep. Ships and vessels bound to the northward through the *Faro*, stop tide here: the water is clear, but before the anchor is let go, the lead should be hove, for in 30 fathoms water the bottom is seen, and frequently in 35 fathoms, which is not above $\frac{1}{2}$ of a mile from the beach: the ground, however, in these depths is good. The best anchorage is in 20 or 22 fathoms water, at about two cables distant from the beach: there is no danger of driving on shore, although so very close to it; for, in the first place, the anchor draws up a steep beach; and, secondly, the tide sets on the beam, so that the ship bears little strain on her cable.

"It is the opinion of many seamen that the currents have not a regular course in the *Faro*, and that there is no regularity in the tides. That they are not in general well known, is certain; for it requires much experience to become completely acquainted with them. I was upwards of twelve months on the station before I acquired so much knowledge of them as to be able to work with advantage through the *Strait* to the northward; and it was two years more before I could depend on my practice, to pass through either way, or take the Harbour of *Messina*.

"The following is the result of my experience:

"The different currents in the *Strait of Messina*, at certain times of the tide, always take the same course.

"The tides flow regularly, and change with the moon; the flood, or northern stream, running 5, and the ebb 7 hours. On full and change days, the tides flow (in the stream off the *Faro Lighthouse*) about 5 o'clock, and at *Messina* about $\frac{1}{2}$ past 7 o'clock. The difference is 2 $\frac{1}{2}$ hours, which in fine weather is equal to half the flood; but when the wind blows hard from the West, W. N. W., N. W., or even N. N. W., they are greatly affected thereby, as is the case in all Friths or Straits, where there is a tide;

and although the ebb runs stronger, as well as longer, than the flood, yet in very bad weather, and especially in neap-tides, I have found little or no stream, at the entrance of the *Faro Passage*, from the northward.

"During the last 3 hours of the ebb-tide, an eddy, or counter-current, runs up the Sicilian shore to the *Harbour of Messina*, and from thence northward one hour longer, joined with the first hour of the flood, which then changes into eddies forming a counter current along the shore, between the *Faro Point* and *Messina Lighthouse*, during the remainder of the flood. This change of the stream makes the tides in the *Faro* to run tide and half tide: the stream of this counter-tide extends at most about one-third of a mile off the shore.

"Now, if a ship or vessel in *Messina Harbour* is bound out of the *Faro* to the northward, with the winds from the N. W., she must take advantage of this northern eddy, or counter current, along the *Messina* shore, and manage so as to be abreast of the fishermen's cottages an hour before the tide is done; then heave the ship to, and this eddy tide will carry her into the first set of the flood off the lighthouse; she must then act according to circumstances.

"But great care must be taken to avoid the stream of the *Faro* tide, while sailing or drifting up; for should the ship be caught in the southern stream, and the wind continue to the northward, no chance is left to get out on the flood: on the contrary, if it falls calm when in the set of the southern tide, it may be days before she is again able to get up to the spot where she was caught.

"By adopting the above method, even in neap-tides, a ship will get out to sea, because she will have the whole of the flood in her favour. But as the neap-tides are weak, more especially so when there is a contrary wind, the utmost attention must be paid to navigating the ship; likewise all possible sail made, and carried through the tide; for after $2\frac{1}{2}$ hours from the first of the flood, the stream becomes weak, and no more assistance must be depended on from it. Therefore, to make sure of getting out, the ship should be stretched to the westward as soon as she can weather the *Lighthouse Point*, taking care to keep clear of a dangerous shoal of rocks, lying about half-a-mile to the north-westward of the extreme point on which the *Fort stands*. Ships frequently get aground on this shoal, from too great anxiety to keep out of the *Inset of the Faro*; but short tacks, with the lead going, will answer the purpose until the *Lighthouse* bears S. by E., distant 4 or 5 miles, when the ship may be stretched to the northward with safety.

"In going to the northward, should it fall calm before you get out of the inset, prepare to anchor when the *Lighthouse* bears about South or S. $\frac{1}{2}$ W. There is a bank of 10 or 12 fathoms water, which stretches down towards the *Lighthouse point*: the first cast of the lead upon it, let go a bower anchor, and veer to two-thirds of a cable at once. Here the ship will ride during the ebb; but a careful man must attend the wheel while the strength of the tide runs.

"If any ship passes this bank in a calm, she will be carried over with great rapidity to the *Coast of Calabria*, and there land on the beach, unless great exertions are instantly made by the boats to tow her head into the main southern stream of the *Faro*. Effect this, and there is no danger: for she will keep in the southern tide in a calm, if once in it, and will drive 9 or 10 miles below *Messina*, before half-tide in the *Faro*.

"Ships bound into *Messina Harbour* from the southward, with northerly winds (which winds prevail three-fourths of the year), should endeavour to work along by the *Calabria shore* as high as *Reggio*, where at half-flood the stream runs strong from side to side.

"If a ship of war is off *Cape dell'Armi* with the first of a flood and a fresh breeze she will get up to the *Lighthouse of Messina* in that tide; but unless favoured by the wind before high water, she cannot make the *Harbour of Messina*; for it often happens that ships are within a cable's length of the harbour, when the tide of ebb, making with strong eddies, sweeps the ship in a few minutes out, and down the *Faro* she goes with great rapidity, which I have frequently experienced. To avoid this, and to make sure of the harbour, attend to the following directions:

"The shores being steep on both sides, work the ship in the strength of the tide as you best can; and by the latter end of the tide, the ship will be at, or near the *Lighthouse of Messina*. Then, do not attempt to take the harbour, even though the shore should be a flattering prospect of going in; because, in general at the change of the tide the wind fails; then the ship will be caught, as before mentioned. When near the *Citadel or Lighthouse of Messina*, stand over to the *Calabrian shore*, and there make short tack or two, until it is high water. On these tacks the ship may lose ground; but as soon as the ebb makes down the *Faro*, a counter-tide runs up this shore: then, if the wind blows a fresh gale, continue to work in this counter-current, keeping a good look-out for the edge of the *Faro stream*; when in a few tacks the ship will be up

to a low sandy point, having a small village near it: this point stretches out a little into the *Faro*, which occasions the eddy-current. When close up to the above point, make as much sail as the ship can bear; then on the larboard tack stretch across, and keep her at least a point free. The *Faro* tide will, in a few minutes, take the ship on the lee-beam; and if the wind continues, it will carry her to the *Harbour of Messina*, or to the anchorage to the northward of it, which is upon a bank about half a mile to the northward of the *Marina Fort*. But it is necessary to consider at what rate the ship will go with the wind a point free, more especially so in spring-tides; and if you are not sure that the ship will go 5 or 6 miles an hour, give up the idea of pushing for the harbour on the first part of the ebb: therefore shorten sail the moment you find the ship going to windward, and heave her to, and attend the set of the tide until she has drifted up to the low sandy point above mentioned. Then chuse your own time to cross according to the direction and strength of the wind; but be sure to make all sail, although it be only for a few minutes, because there is no depending on the winds in the *Faro*: for should it fall little wind, and the ship be under slack sail, before more sail can be made, the tide will be lost, and no art can carry the ship back, from whence the attempt was made to cross the *Faro*, but down she goes for several miles.

"The above directions for the *Harbour of Messina*, if attended to, will never fail of taking any ship or vessel into it; and that on a lee-tide. Therefore any person making the trial (with caution), will be convinced that it is not so difficult as is generally represented; and after a few trials made, which will give sufficient experience to the navigator, he will always be able to take the *Harbour*, either by day or night.

"If bound into the *Harbour*, a double range of the cable is necessary, and also a boat along-side, with a cable ready to run on shore the moment the anchor is let go."

MESSINA is a large and ancient City, situated at the foot of some mountains, and forms a most beautiful appearance as you are advancing towards its harbour. The town presents a fine circular sweep along shore, rising by a gentle graduation, so as to let you see almost every public edifice at one point of view. The whiteness of the buildings makes an admirable contrast with the dark green foliage behind; while the lower grounds are strewn with cottages and villages. Messina is regularly built, and contains a population of 73,000: the streets are wide and handsome, paved with lava, and have numerous churches, convents, and public edifices, ornamented with fountains and statues.

The Port of Messina is a large basin of a circular form, well situated for commerce, and one of the most secure and commodious that can be imagined. It is open on the N. W., the entrance being 500 yards wide, and is enclosed on the N. E., East, and South by a low sandy tongue of land, in the form of a crescent, and called the *Braccio de St. Rainiere*. On its northern end is *Fort Salvatore*, a long irregular building, which flanks the entrance; to the S. Eastward of this are the *Flo-tilla Arsenal* and *Lazaretto*; to the eastward of which is the great *Lighthouse*, which is squarely built, and surrounded by a fortress. There is also a smaller lighthouse erected between the great *Lighthouse* and the *Fort St. Salvatore*; so that the higher light in a line with, or a little open to the westward of the lower one, will always be a good direction for entering the harbour. On the southern side of the basin is the *Citadel*, next which is the *Arsenal*; and all along the western side is the *Marina*, consisting of a long line of buildings running parallel to the sea, at the northern part of which is the *Bastion Reale*, serving to defend the entrance of the harbour.

The *Marina* is an excellent wharf, above a mile in length, and exhibits the merchant vessels of all nations, with their bowsprits placed over the quay, each taking in or discharging their cargoes: here are situated the *Pratique Office*, the *Fish-market*, and the *Custom-house*; and parallel to these are the ruins of some ancient buildings, having eleven arched gateways, leading to as many different streets.

Messina carries on an extensive commerce in silks, oil, corn, wine, and fruits, and also in foreign cottons: provisions are plentiful and cheap; wood, charcoal, and water may be obtained with ease.

Vessels entering this Port require no Pilot, though many employ one, in order to have the assistance of their boats for carrying a hawser to the shore or wharf, which is necessary coming in, when the tide runs very strong. Most ships moor with a cable to the eastward, in about 20 fathoms, and a hawser fast to the shore, as there are stone pillars for that purpose, at regular spaces on the wharf. "The best mode of anchoring," says Captain Smyth, "is to run close in, off the

Marina, having a warp ready for a stern-fast, then drop anchor in about 30 fathoms, and secure to the shore immediately." A ship can moor, if she should prefer it, in the central part of the harbour, with her best bower to the N. E. and the small one S. W., having an open hawse to the N. W., as heavy squalls rush down the hills in that quarter; but as the western anchor, from the steep nature of the bottom, is liable to be brought home, and the ship would quickly tail, mooring thus is not so advisable as with fasts on the quay. To Commanders of the Navy the following anchorage is recommended: the best bower in 31 fathoms; small bower 23; ship in 35 fathoms, with the *Citadel flagstaff* S. E. by S. (*S. by E. $\frac{1}{4}$ E.*); *Castle Gonzaga* W. S. W. (*W. $\frac{1}{4}$ S.*); *Tower of Cœur de Lion*, *Mata Griffone*, W. by N. $\frac{1}{4}$ N. (*N. W. by W.*); *Porta Reale Bastion* N. W. $\frac{1}{4}$ W. (*N. N. W. $\frac{1}{4}$ W.*); and the great *Lighthouse* E. $\frac{1}{4}$ N. (*E. S. E. $\frac{1}{4}$ E.*).

In the N. E. quarter of the harbour, between *Fort Salvatore* and the *Lazaretto*, is a patch of foul ground, where the wrecks of two Spanish vessels were sunk, many years ago. Vessels intending to make a short stay here, can bring up outside of the harbour, off the *Convent of St. Frances*, where an offing is insured for proceeding either northward or southward: the ground holds well, and is sufficiently sheltered; but between it and *Fort Salvatore* the bottom is broken and foul, in from 20 to 30 fathoms, and very injurious to your cables; and you are much annoyed by the *Terredo Navalis*, or ship worm, in this port.

The ancient whirlpool, named *Charybdis*, is formed at the back of the *Braccio di St. Rainiere*, which Captain Smyth describes as a spot of agitated water, from 70 to 90 fathoms deep, circling in rapid eddies: these appear to be occasioned by the meeting of the harbour and lateral currents with the main current; the latter being forced over in this direction by the opposite *Point of Pezzo*. The perils of *Charybdis* have long been proverbial, and small craft are at the present time sometimes endangered by it: even vessels of war will often be turned round; but, with a little care, no inconvenience or danger is to be apprehended from it. This whirlpool is situated at about two cables' length from the shore, in the middle of a kind of bay, between the *Tangora Point* and *Shoals*; which latter are two sandy shelves stretching from the land, near the great and little lights, having over them from 2 to 15 fathoms. When you are leaving *Messina*, and bound southward, you should be cautious that the strength of the current does not take you upon these shoals, for the sand is nearly hard as a rock; and should a vessel get aground hereabouts, the great rapidity of the stream, and depth of water outside, will tend to prevent her getting off again without great damage. It was to prevent such accidents the small lighthouse was erected, which, as before observed, brought in one with the old, or great lighthouse, will lead direct for the harbour; and these lighthouses kept at a distance of 5 or 600 yards to the S. westward of you, in passing, will carry clear of both shoals. *Messina old lighthouse* is in latitude $38^{\circ} 11' 30''$ N., and in longitude $15^{\circ} 34' 40''$ E.

From abreast of the *Lighthouse of Messina* the shore runs in a S. S. W. (*S. W. $\frac{1}{4}$ S.*) direction, exhibiting a fine sandy beach, descending gradually from the inland mountains, and presenting a series of villages, gardens, and vineyards, from whence *Messina* is chiefly supplied with wine, oil, and fruit; the intervening towns of *Contessa*, *Stephano*, and others, producing also great quantities of silk for exportation. At *Scaletta* this beach is broken by a rocky point, with an old watch-tower upon it; and the place is fortified for the defence of the roads to and from *Messina*. The shore all the way from the City is steep, having from 30 to 50 fathoms, within the distance of a cable's length; and there are but three places where a vessel can obtain even a temporary anchorage. *Scaletta Fortress* is in latitude $38^{\circ} 1' 45''$ N., and longitude $15^{\circ} 27' 45''$ E., being at the distance of $10\frac{1}{2}$ miles from *Messina Lighthouse*.

From *Scaletta* the land turns a little more to the westward (*S. W. $\frac{1}{4}$ W.*), towards the *Town of Taormina*. In this passage you pass by *Cape Grosso*, a bluff headland, with several rocks about it, and situated about a league from *Scaletta*. On the opposite shore of *Calabria* is *Cape del Armi*, distinguished by its having two turrets, and appearing directly under the hill of *Pentadati*, which derives its name from having five singular crags on an insulated base, bearing a great resemblance to a human hand: half the way up this hill is a castle. A line drawn from *Cape Grosso* to *Cape del Armi* will shew the southern boundaries of the *Faro*, or *Strait of Messina*; but the influence of its currents extends more to the southward.

Just within *Cape Grosso*, on the declivity of *Mount Scudero*, is situated the old *Town of Ali*, celebrated for its mineral waters, and for the constant wind blowing with considerable strength from a cave near its level summit. Eight miles S. W. by S.

(S. W. $\frac{1}{2}$ W.) from *Cape Grosso* is *Point St. Alessio*, a bold, abrupt promontory, with several rocks at its base: here coasters frequently anchor, although the water is shallow, and the sea fetches in.

Between *Cape Grosso* and *Point Alessio* the beach is bold-to, presenting several rivulets, towns, and villages. Of these towns, that of *Fiume di Nisi* is the nearest; this is situated under an old castle, of Saracenic origin: the town stands on the banks of the river, and is nearly a mile inland; the castle is about a mile and a quarter in: in the vicinity are several rich mines. Four and a half miles beyond *Nisi* is the *Town of Savoca*, and beyond that the little *River of Agro*. *Point St. Alessio* here juts out, and has a tower, a barbican, and a telegraph upon it: the point has several rocks about it, and requires a berth in passing. Above the Point is the *Town* and *Castle of Forza*, the inhabitants of which are much afflicted with malaria.

At the distance of 5 miles from *Point Alessio* is the *Promontory of Taurus*, now called *Cape St. Andrea*: this Cape forms the northern side of *Taormina Bay*, upon which is a telegraph, in latitude $37^{\circ} 48' 15''$ N., and longitude $15^{\circ} 17' 40''$ E. There are also several singular remains of ancient buildings upon it, and the *Town of Taormina*, containing about 3 or 4000 inhabitants; above this is the still poorer *Town of Mola*, with a population of 400: there are many large buildings hereabout, and a more than usual number of them are convents. As you come round the Cape from the northward, you will meet with many curious rocks of coarse red marble, with caves of considerable size, now the resort of innumerable wild pigeons. On the southern side of a rivulet, in the middle of the bay, is the *Village Giardini*, with a good inn, although the place is unhealthy. On the beach of *Giardini* is the statue of a Bishop; and beyond this, with several turrets upon it, is the *Point Schiso*, with its ground of lava, forming the southern point of the *Bay of Taormina*. There is tolerable anchorage in this bay, in from 8 to 30 fathoms, the ground being fine sand near the shore, and mud further out; but it is open to all easterly winds, excepting close up to either of the points, and therefore should only be resorted to in cases of necessity, where a berth about the middle of the bay will prove the best. Near *Point Schiso* is the *Baron's Castle*, and a tower and barbican; some rocks lie off its point, both above and under water: it will therefore always be right to give it a proper berth. Leaving *Point Schiso*, the coast turns in W. S. W. $\frac{1}{2}$ W. (West); $1\frac{1}{2}$ mile from which is the *River Alcantara*, one of the largest streams in Sicily. Between this river and *Point Alcorati*, a distance of nearly 7 miles, is the district of *Moscali*, producing much wine: and near *Alconari* are the flourishing villages of *Riposto* and *Giarre*; but the ground about this part is not fit for anchorage, although at 2 miles distant from *Point Schiso* is a loading-place, where much grain and timber are embarked; it is commonly named *Casa Cottone*.

ACI REALE. Five miles to the southward of *Alcorati* is *Point Tocco*, a steep mass of basaltic lava, now converted into a mole, and forming a little port, called the *Marina of Aci*. The *Town of Aci Reale* is to the westward of this, and built upon extensive torrents of ancient lava, in a healthy and very fertile situation. The town is regular and clean, with many churches, and a population of 14,000. To the southward of *Point Tocco* is *Cape Molino*, another remarkable promontory of consolidated lava, distant about $2\frac{1}{2}$ miles from *Point Tocco*. Beyond *Cape Molino*, and to the westward of it, is the little *Cove of Trezzia*, on the north side of which is the *Village of St. Anna*; and to the southward of the loading-place of *Trezzia* is a town, built entirely of encrusted lava, the dark hue of which, contrasted with the white-washed door-posts of the houses, has a singular appearance. This town is computed to contain 800 inhabitants. On the south side of this bay are those remarkable rocks called the *Cyclops*, having a most singular appearance. The Bay or Cove affords tolerable anchorage in from 12 to 7 fathoms, fine dark sand, except near the rocks, and off *Trezzia*, where there are some spots which are foul.

GULF OF CATANIA. This fine and extensive Gulf commences at *La Trezzia*, and continues so far as *Cape Santa Croce*, bearing from each other S. by E. $\frac{1}{2}$ E. (S. $\frac{1}{2}$ W.), distant 17 miles. The land from *La Trezzia* bends in S. W. (W. S. W. $\frac{1}{2}$ S.), $\frac{1}{4}$ miles, to *Point Armissi*; within this space is the little *Town of Aci Castello*, with its castle rising up from the sea, and built upon an enormous block of lava, having a population of 7 or 800: this place is healthy, but irregularly formed, and very dirty. For above $1\frac{1}{2}$ mile beyond *Aci Castello* the shores are black, and contain many caverns: here you will see the *Town of L'Ognaro*, standing in a cove, from which a great quantity of squared lava is annually exported for building and paving. The general depth in the cove is from 7 to 3 fathoms; but the bottom is foul, and should have chain

cables. The coasts hereabout are all bounded by the volcanic matter issued at various times from the crater of Mount *Ætna*.

CITY OF CATANIA. West, about one mile from *Point Armisi*, is *Catania*, a place considered the second city in *Sicily*, and remarkable for the elegance of its buildings, and the respectability of its inhabitants. The town consists of two long and spacious streets, intersected at right angles by several others; these are all regularly built, and paved with lava: it is the residence of chief of the Sicilian nobility, and considered to have a population of near 80,000. The market-place is a handsome building, and well supplied with provisions, fruit, and vegetables, of all sorts, at reasonable prices. The port is generally filled with small craft, which export corn, olives, almonds, macaroni, potatoes, figs, wine, silk, oil, cheese, soda, manna, cantharides, amber, lava, snow, &c.; the trade requiring a much better harbour. Between *Point Armisi* and *Point Schiarrà*, all vessels bring up in from 12 to 7 fathoms; but they are obliged carefully to pay attention to the wind, for the ground is mostly rocky. The inner port is formed by a stream of old lava on the south, and by two short piers to the northward; its greatest depth is $3\frac{1}{2}$ fathoms, and this depth does not go far into the bay. The mole is situated in latitude $37^{\circ} 28' 20''$ N., and longitude $15^{\circ} 5' 18''$ E. The outer anchorages are clean; and you may pick out a berth by the lead, riding safe enough in the summer season. The shores of the bay are formed by a sandy beach, which runs nearly 10 miles to the southward of the City. About a league from *Catania* is the little *River Galico*; and further on, the larger *River Giaffretta*, or *Simetus*.

MOUNT ÆTNA. From the *River Alcantara* to the *River Giaffretta*, the shore may be considered as the eastern termination of *Mount Ætna*, of which the base is 87 miles in circumference, and its summit 10,874 feet above the level of the sea. This summit is $14\frac{1}{2}$ miles to the northward of *Catania*, being in latitude $37^{\circ} 43' 31''$ N., and longitude $15^{\circ} 0' 0''$ E. The ascent of this mountain is very gradual, exhibiting tracks under different temperatures, and which are commonly divided into three regions or zones, the fertile, the woody, and the barren. The lower or fertile region is well cultivated, and thickly inhabited, containing a number of small conical hills, from 300 to 400 feet high; these commonly have a crater at their summit. The woody region is an extensive forest, 6 or 7 miles broad, affording abundant pasturage for numerous flocks and herds; in the higher part of this division the trees perceptibly become less, and the cold increases until you reach the upper, or barren zone: here vegetation entirely ceases, and the surface presents a dreary waste of lava, scoria, ashes, snow, and ice. The crater is situated in the middle of this desolate region: it is about 2 miles in circumference, and presents the appearance of an inverted cone, incrustated with salts and sulphur; in general very hot, and so loose that the descent becomes exceedingly hazardous. The approach of an eruption is indicated long beforehand, by a pale smoke issuing from the crater; this is followed by clouds of black smoke, which progressively increase, until, after a lapse of perhaps weeks or months, the lava begins to boil over the crater, or bursts out from some of its sides: the interior commotion now ceases, and the lava flows slowly down the sides of the mountain. Captain Smyth is of opinion that this volcano is by no means so active as in ancient times; that the matter formerly was more abundant, and the vitrifications more numerous; whereas latterly no such substances have been ejected.

Having quitted the *Port of Catania*, and following the sandy beach for 10 miles, you will arrive at the loading-place of *Agnuni*, a village where corn, oil, and rice are commonly exported: this is an unhealthy place during the greater part of the year. On the side of one of the hills at the back of *Agnuni*, and at the distance of a league and a half from it, stands the *Town of Lentini*, containing a population of 5000, who carry on a commerce with the interior of the country in oils, and their other inland produce. E. S. E. $\frac{1}{2}$ E. (*S. E. $\frac{1}{2}$ E.*) from *Agnuni* is the little *Port of La Brusca*: here you will see a small village, seated on the point of a rock, containing a few poor inhabitants; it has a square castle with round towers at its extremities. This little cove appears to be the work of art more than of nature, as the rocks rise vertically 40 and 50 feet, and contain several grottoes. It is frequented by small craft for wheat, tunny, and square stones for buildings: the oysters here are very fine. As you approach, you will find the soundings gradually decrease, and under the castle you will have $2\frac{1}{2}$ fathoms: the shore towards the west is most steep.

About a mile to the eastward of *Port La Brusca* is *Point Cornala*, from which to *Cape Santa Croce* the bearing and distance are S. S. E. $\frac{1}{2}$ E. (*S. by E. $\frac{1}{2}$ E.*), one

league. *Cape Santa Croce* is bold, but has a few rocks about it, and a reef runs off the point: upon its summit is the little *Convent of St. Helena*. The promontory of *Santa Croce* terminates at *Point Grosso Longa*, which is three-quarters of a mile to the southward of the *Cape*. The *Cape* itself is in latitude $37^{\circ} 14' 30''$ N., and longitude $15^{\circ} 14' 30''$ E.

Having rounded *Cape Santa Croce*, you will be in the *Gulf or Bay of Augusta*.

AUGUSTA. This City stands upon a sort of peninsula, about $1\frac{1}{2}$ mile to the westward of *Point Grosso Longa*, the coast between forming the *Bay of Porto Saffonica*, the inner part of which is both shoal and rocky. At the distance of one-third of a mile from the southern end of the peninsula is the *Torre d' Avolus*, a well-built but isolated fort, in which a light is exhibited: the shoal ground extends three-quarters of a mile to the southward of this tower, and thence borders all the bay to the *Island Magnisi*, by which it is terminated on the south. One mile and a quarter to the northward of *Magnisi*, and nearly in the middle of the entrance, is the *Hybla Shoal*: this is a dangerous reef of hard rocks, with from $3\frac{1}{2}$ to 5 fathoms over it; and having near its sides 8 and 10 fathoms, with a bottom of gravel. The *Town of Augusta* is large, and well-fortified; the streets regular, but the houses are low, and the inhabitants, amounting to 8000, chiefly subsist by the sale of salt, honey, oil, and wine. The principal fortress is situated upon the isthmus that unites the town to the main, and commands both. Towards the sea the town is surrounded by a glacis, or covered way, in front of which is an artificial cordon of rocks in the water, to prevent the approach of boats. The *Pratique Office* and the *Mole* are between the town and citadel: the landing-place for boats is under the line-wall, near the middle of the above rocks. The western side of the bay and harbour is watered by several streams, abounding in eels, mullet, barbel, and other fish. Here, on the banks of the *River Molinello*, are the remains of *Hybla Galeota*; and further to the southward, the vestiges of *Hybla Megara*. There are also the *Rivers of Marcellino, Cantara, and Giovanni*, with the *Towers of Prioli and Fico*. The inhabitants collect considerable quantities of honey from the range of hills that bound the plain to the westward. *Magnisi*, the southern boundary of *Augusta Bay*, is of moderate height, and connected to *Sicily* by a sandy ridge, or causeway, having at its inner end the salt-works of *Sajona*, and the *Plains of Aguglia*. On *Magnisi* is a *Martello Tower*, which bears from *Augusta Lighthouse* S. $\frac{1}{2}$ E. (S. by W.), distant $3\frac{1}{2}$ miles, and commands the whole of this part. On the *Plain of Aguglia* is a pyramid, called the *Monument of Marcellus*.

Vessels standing in for *Augusta Bay*, from the northward, may pass the promontory of *Santa Croce* at a convenient distance, taking care to clear the rocks which lie at the foot of *Grosso Longa*. Steer from thence a S. S. W. (S. W. $\frac{1}{2}$ S.) course for $2\frac{1}{2}$ miles, or until you bring the lighthouse to bear N. N. W. $\frac{1}{2}$ W. (N. by W.), distant $1\frac{1}{2}$ mile, never shoaling your water to less than 12 fathoms; and when the lighthouse and cathedral are in one, gradually haul up north-west and north, passing to the westward of the light at the distance of half a mile, and taking a berth abreast of the town in from 11 to 7 fathoms, clayey ground; or you may run further in, beyond the forts, and anchor in 6 fathoms; but if intending to stay here, this latter is not so wholesome as at the lower anchorage.

Captain Smyth gives the following directions for mooring with the anchors true north and south, in 10 fathoms, stiff clay, distant half a mile from the town:—the Citadel N. E. (E. N. E. $\frac{1}{2}$ N.); the Lighthouse S. E. by E. (E. S. E. $\frac{1}{2}$ E.); *Magnisi Tower* S. S. E. (S. $\frac{1}{2}$ E.); *Cantara Point* S. S. W. $\frac{1}{2}$ W. (S. W. $\frac{1}{2}$ W.), and *Vittoria Fort* N. W. by N. (N. N. W. $\frac{1}{2}$ N.).

On entering this Bay, you must always take great care to avoid the *Hybla Shoal*, which lies with the lighthouse a little open of the cathedral, distant from the former $1\frac{1}{2}$ mile: to avoid which, large vessels may keep towards *Santa Croce*, until they get the lighthouse to bear N. W. by W. (N. W. $\frac{1}{2}$ N.), distant 2 miles, and then stand in towards the anchorage. Or they may enter to the southward of the shoal, between it and *Magnisi*, only giving the latter a berth of three-quarters of a mile, and steering over towards the main, until you get the Cathedral well open to the westward of the lighthouse; for by so doing, you will have plenty of room to beat up. With easterly and southerly gales there is often a great swell in the bay; therefore the further you lie out, the heavier you will ride; and although the ground is good, you will frequently have occasion to sight your anchor, for otherwise it will require an immense purchase to weigh it up.

Augusta Lighthouse is situated in latitude $37^{\circ} 12' 50''$ N., and longitude $15^{\circ} 13' 15''$ E.

PANAGIA BAY. Having rounded *Point Tumiora*, which is the eastern *Point of Magnisi*, you will open the *Bay of Panagia*: this bay is formed between the *Point of Magnisi* and *Cape Panagia*, which bear from each other S. E. by S. (*S. S. E. $\frac{1}{2}$ S.*), and N. W. by N. (*N. N. W. $\frac{1}{2}$ N.*), distant 3 miles, and has a sandy bottom. At its southern part is a rocky creek, where the tunny-fishery is carried on, principally resorted to by vessels engaged in that trade. From hence the land runs South (*S. by W. $\frac{1}{2}$ W.*), for about 4 miles. The coast is all rocky, with numerous caves, and generally steep-to; some of these are very remarkable, and one, about half-way between *Panagia* and *Syracuse*, is a perforated rock, three-quarters of a mile to the southward of which are the *Capuchins*, forming a cluster: they lie close in to the shore. These are nearly half a mile to the northward of *Syracuse*: between them and the town is a shallow bay or cove, called *Porto Piccolo*, in which the ground is rocky. More towards the south, and at a cable's length off the middle of the town, is *Scoglio del Cane*, or the *Dog Rock*, which is low, and has within it a passage for small vessels, with 3 fathoms water.

SYRACUSE. This was formerly the capital of *Sicily*, the circuit of whose walls measured 20 miles, and whose population amounted to more than half a million; but the modern City is confined to the *Island Ortygia*, the S. E. corner of the old town, and contains about 14,000 inhabitants. It is insulated, walled round, and connected to the main by drawbridges: the streets are regular, but narrow: the City has still a fortress of considerable strength; and the entrance of the harbour is commanded by the *Castle of Maniace*, on which stands the lighthouse, in latitude $37^{\circ} 2' 58''$ N., and longitude $15^{\circ} 16' 50''$ E. The surrounding country is extremely fertile, and produces corn, oil, hemp, tobacco, fruit, pulse, and most delicious wines. The *River Anapus*, which is on the western side of the bay, is much injured and obstructed by the pernicious practice of steeping hemp in its waters during the summer season. Near the banks of this river was the ancient *Temple of Jupiter Olympus*, only two columns of which now remain; but these constitute most excellent beacons for entering the harbour. In the environs of this once famous City are numerous vestiges of its former grandeur; the prison, the tombs, the theatre, the aqueducts, the catacombs, and walls are still visible: but the alluvial plains to the westward are now become a receptacle for stagnant water, whose effluvia renders the situation far from wholesome.

The southern side of the harbour formerly was the *Promontory of Plemmyrium*; and there are some rocky shoals lying off it, which still retain that name. These stretch about one-third over the entrance from the southward, and have $3\frac{1}{2}$ fathoms over them, while between them and the land are 7 fathoms: one of these is above water, and called the *Egg Rock*.

In entering the harbour, so soon as your vessel clears the *Lighthouse Point*, you will perceive the two broken columns of *Jupiter Olympus*; bring these in a line, bearing W. $\frac{1}{2}$ N. (*W. N. W.*), and you will have from 15 to 9 fathoms. When standing on in the night, bring the *Lighthouse* to bear W. N. W. $\frac{1}{2}$ N. (*N. W.*), distant from one quarter to half a mile, and then steer West, or W. $\frac{1}{2}$ N. (*W. N. W.*), and you will go clear of the *Plemmyrium Shoals*, and pass in a clear channel to the southward of the *Lighthouse*. Good anchorage will be found to the northward, opposite to the town; but for the convenience of getting out with light winds, a situation between the town and the salt-works will be preferable: here you will ride in from 9 to 5 fathoms, over a bottom of fine black mud; but do not go too far in, for, owing to the floods of the *Anapus*, and the marshes, that part becomes shoal; keep therefore at the distance of half a mile from the beach.

If you intend wintering here, you moor with your best bower to the S. W., the small one N. E., and an open hawse to the mouth of the harbour; for S. westerly winds come over the *Valley of Maddalena*, and are the most violent, while East and S. E. winds occasion the greatest swell: therefore you will ride best in 6 or $6\frac{1}{2}$ fathoms, about half a mile from the shore, on clayey ground, with the following bearings: the *Cathedral*, which is situated in the centre of the town, and was formerly the *Temple of Minerva*, N. E. by E. (*E. N. E. $\frac{1}{2}$ E.*); the *Lighthouse* E. S. E. $\frac{1}{4}$ E. (*E. S. E. $\frac{1}{2}$ S.*); *Massa Point* S. E. (*S. S. E. $\frac{1}{2}$ E.*); the *Columns of Jupiter Olympus* W. $\frac{1}{2}$ S. (*W. by N.*); and the *Mouth of the Aqueduct* N. $\frac{1}{4}$ W. (*N. by E. $\frac{1}{2}$ E.*).

"When at anchor," says Captain Smyth, "in the noble Harbour of *Syracuse*, the beauty of the surrounding country is peculiarly striking, as the town still possesses all the local advantages for which it was renowned in the days of its glory; and its climate is such as to justify the ancient adage, 'that there never was a day in which

the sun was not visible at some hour.'” It is admirably adapted both for a naval station, and for a commercial emporium with the Adriatic, the Morea, the Levant, and Egypt; but a few polacche and paranzelli are the only vessels that repair thither, and the commerce consists of the export of a little salt, wine, oil, and fish; notwithstanding that the excellent bottom of this harbour, its easy access, good supply of water, and security, make it rival any haven in Europe. It was here Lord Nelson’s fleet was supplied with bullocks, vegetables, and other refreshments, and was ready for sea again in five days, in his memorable pursuit of the French fleet in 1798.

From the best anchorage in the northern part of the harbour, the lighthouse will bear from S. E. to S. E. by S. (*by compass*), and the *City Gates* E. by N. to E. N. E., in 5 fathoms water, soft mud. The tide is scarcely perceptible, and the winds will sometimes occasion a little rise and fall.

Wood and water are easily to be procured, the latter at various places; but the best is on the north side of the harbour, from a fine run brought down by the aqueduct. Your casks may be filled in the boat with a long hose, or, in case of emergency, and with a fleet, from the *River Anapus*: but here, as before observed, it is not so pure; and it will be necessary to raft the full casks off, or rig a triangle to get them into the boat; for the entrance is too shallow for your boats to go into it.

From *Syracuse* to *Cape Passaro*. Having left the Bay, to proceed to the southward, you will pass the *Morro di Porco*, which is the southern part of the promontory which forms the Bay of *Syracuse*, and is in latitude 37° N., and longitude $15^{\circ} 18' 58''$ E. You may sail as near as you like to this part of the Cape, for within a cable’s length of it there are from 15 to 20 fathoms, when *Cape Passaro* will be seen, appearing like an island.

About 3 miles W. S. W. from the Point of the *Morro di Porco*, is the little Port of *Lognini*, formed by a rock joined to the main by a reef on the north shore. The coast between these places constitutes a fine bay, having several sandy coves, where vessels may ride sheltered from W. N. W. by the North to E. N. E. (*by compass*), in 12 and 13 fathoms, sand and mud.

AVOLA. Nearly 6 miles from *Lognini* is the Town of *Avola*, situated on a woody eminence, and containing a population of 7000. It has a marina, a tonnara, a battery, and a good market-place: there are also several respectable buildings, and the whole wears the appearance of cleanliness and regularity. *Avola* carries on a considerable commerce; for besides the tonnara, or fishery, it exports wine, corn, carubbas, almonds, oil, honey, fruit, and some sugar, made from the only cane-plantation now in the island. The inland country abounds with game, and affords pasturage for a great number of fine cattle, part of which are exported to Malta. To the southward of the Marina, about 2 or 3 miles, are the nets for catching the tunny-fish; and here you will see a vessel at anchor, with a kind of hut built upon her, which serves for a beacon.

NOTO. W. S. W. $\frac{1}{2}$ W. (*West*) from *Avola*, distant 4 miles, is the Town of *Noto*, which is large, and has 13,000 inhabitants. It is beautifully situated, and esteemed one of the most elegant and respectable towns in *Sicily*, but very unhealthy. The *River Abyssa* runs through the plain below it; and although the surrounding country abounds with vines, fig, walnut, olive, and almond trees, and these are luxuriantly intermixed with myrtles, roses, jessamines, and numerous aromatic shrubs, yet the natives appear poor and unhealthy.

VINDICARI is a small port and loading-place, in latitude $36^{\circ} 49' 12''$ N., and longitude $15^{\circ} 5' 20''$ E. It is situated about 4 miles to the southward of the *Ballata di Noto*, and near the marshes of *Rovilla*, being defended by a tower of four guns. Refreshments may be obtained from this place, but not without considerable trouble. To the southward of *Vindicari*, about $3\frac{1}{2}$ miles, is a small fishing village, called *Marzamemi*, inhabited by an industrious set of people, who possess the best tonnara in *Sicily*. From hence the coast assumes a desolate and barren appearance, seemingly wholly deserted, did not a hill to the S. W. by W. (*W. S. W. $\frac{1}{2}$ W.*), distant 2 miles from *Marzamemi*, shew the new Town of *Pachino*, with its church and windmill, which are conspicuous at a great distance. Following the coast for 4 miles, S. S. E. $\frac{1}{2}$ S. (*South*), you will arrive at the Island of *Passaro*. This island wears a desert appearance, but has a large tonnara, which is said to employ 300 people: it is a singular accumulation of marble, volcanic, and oceanic deposits, high on all sides but the west, where it joins the main by a sandy spit, over which are 2 feet water. There are a tower and garrison on its eastern point. This tower is in latitude $36^{\circ} 41' 30''$ N., and longitude $15^{\circ} 8' 56''$ E.

Between *Avolo* and *Passaro* there are places with good shelter for vessels which are compelled to bear up from the *Channel of Malta* during westerly gales; your berth must be taken by the lead, in from 9 to 30 fathoms: in-shore you will have sandy ground, but a stiffish clay further out. Care must always be taken in rounding the *Island of Passaro*, in order to keep clear of the nets for the tunny-fish; and the *Points of Marzamemi, Vindicari, and Ballata di Noto* must each have a berth in passing, for many rocks are about them. Half a league to the south-westward of *Passaro Island* is a low rocky Point, forming the eastern side of the *Cove of Porto Paolo*: this is *Cape Passaro*. At a short distance inland is a little village; the coast has otherwise a dreary and desolate appearance.

Rocks and Shoals adjacent. E. $\frac{1}{2}$ N. (*E. S. E. $\frac{1}{2}$ E.*) from the *Isle of Passaro*, distant 35 miles, is a *Coral Bank*, with from 37 to 54 fathoms upon it. E. by S. (*E. S. E. $\frac{1}{4}$ S.*) from the same *Island*, distant 83 miles, or about in latitude $36^{\circ}26'0''$ N., and longitude $16^{\circ}47'0''$ E., is said to be a *sunken rock*, discovered in 1801 by H. M. Cutter *Entreprenante*: it was nearly calm, and she drifted over it, getting only one sounding of $4\frac{1}{2}$ fathoms: it appeared perfectly white, and about the size of a jolly-boat. Another rock is said to lie in latitude $35^{\circ}51'0''$ N., and longitude $16^{\circ}23'30''$ E., or S. E. $\frac{1}{4}$ E. (*S. E. by S.*), distant from *Passaro* 80 miles: near this spot there was no ground at 250 fathoms. Off the south-western Coast of *Sicily* are several little banks, which, as they have deep water over them, and no danger, we have omitted noticing in our description of that coast; but the mariner will readily perceive their respective situations by a reference to the Chart.

3. THE MALTESE ISLANDS; COMPREHENDING MALTA, GOZA, AND CUMINO.

MALTA. This island, which has successively been in the hands of the Phenicians, Greeks, Carthaginians, Romans, Vandals, Goths, Normans, Germans, and Knights of St. John, was taken by the French in 1798, and surrendered to the British in 1800, who still retain the possession. It is characterized by the strength of its fortifications, the magnificence of its capital, and its great commercial consequence. By nature it is merely a calcareous rock, of a porous composition, which the natives have covered with earth, brought from *Sicily* for that purpose, and thus converted a barren desert into a prolific country; so that *Malta* has now become one of the greatest depôts for merchandise in the whole Mediterranean; and its ports, formerly of no consequence, are now a scene of activity and profit, equal to either *Genoa, Naples, Venice, or Leghorn*.

The *Island of Malta* lies in a S. E. $\frac{1}{4}$ E. and N. W. $\frac{1}{4}$ W. (*S. E. by S. and N. E. by N.*) direction, its length being $14\frac{1}{2}$ miles, and its breadth 8 miles. The southern Coast of *Malta* is altogether clifty, and destitute of harbours, but full of caverns and grottoes. At its S. eastern side is the great Bay of *Marsa Sirocco*, and on the N. E. side the *Grand Port of Valetta*, the capital of the island: to the westward of which, and only separated by the peninsula upon which the City is built, is another large port, called *Marsamuscet*, having on its western side a small island, where vessels perform quarantine. Two leagues to the westward of this is *St. Paul's Bay*, and beyond this is *Mel-heha Bay*, open to the N. Eastward. There are also several smaller harbours, which we are now about to give a description of.

Malta contains two cities and twenty-two villages, with a population of 100,000. The town is so elevated, that from it the whole island may be seen, and sometimes the coasts both of *Africa* and *Sicily*. The catacombs are remarkable and most extensive, containing streets in all directions, formed with the greatest regularity.

GOZA is a much more lofty island than *Malta*, and completely environed with perpendicular rocky cliffs; and to the westward and southward these are particularly steep, so as not to afford any port of consequence in the whole island. The surface of the land is not so uneven as that of *Malta*; but it is of the same nature, and equally mountainous. The pasturage is very fine, and the inhabitants breed vast numbers of cattle for the use of the *Maltese*. Their grapes are good, and in abundance. Corn and cotton are cultivated with success. There are six villages on the island, and a castle near its centre; another stands at the S. eastern part, and is called *Fort Chambray*: the former is built upon a rock 150 fathoms in diameter. At the N. western part of the island is a quarry of alabaster. Near the middle of the Northern Coast is the Bay of *Forno*, affording anchorage for small vessels; as also does *Ramla Bay*, which lies a little to the Eastward of *Forno*. *Port Miggiano* is on the S. eastern side, where there

are some considerable salt-works. Half a league to the south-westward of this is another small inlet, with a little rivulet at the bottom ; having passed which, and sailing along at a little distance from the shore, you will notice a variety of rocks, caverns, and extraordinary productions of nature: these rocks are frequently 150 and 160 feet in height above the water ; they are perfectly white, and the sea around them is so transparent and clear, that you may frequently trace them to their base. Broken cliffs continue throughout the *western coast*, but these are not so high as those on the south. *Cape St. Demitri*, the N. W. end of *Goza*, is in latitude $36^{\circ} 3' 45''$ N., and longitude $14^{\circ} 8' 0''$ E.

CUMINO. This is a small and irregularly formed island, situated between *Malta* and *Goza*. Its eastern point is in latitude $36^{\circ} 0' 15''$ N., and longitude $14^{\circ} 19' 40''$ E.: the length from N. E. to S. W. is two miles, and its breadth one mile. At its southern part is a *tower*, erected upon an eminence ; and to the westward is the little *islet of Cuminotto*, with several rocks about it. On each side of *Cumino* is a channel, taking their names from the islands they are nearest to: that on the west side is called the *Passage of Goza*; that to the eastward, the *Passage of Malta*; both are good and safe: keep in mid-channel, and you will have from 12 to 30 fathoms water throughout, with a fine sandy bottom.

Ball's, or St. Paul's Bank. This is a *Bank* about $3\frac{1}{2}$ miles in length, and one mile broad. It lies N. W. by W. and S. E. by E. (*N. W. $\frac{1}{2}$ N. and S. E. $\frac{1}{2}$ S.*), being directly in the fair-way of vessels passing between *Cumino* and *Malta*. There are from 14 to 7 fathoms over it, the eastern part having the deepest water and the best bottom ; for towards the north it is more shallow and rocky, particularly where you have less water than 9 fathoms. Here you may have good winter anchorage ; the best marks for which are, *St. Paul's Tower* over *Salmona Island*, South (*S. by W. $\frac{1}{2}$ W.*) ; the *University Tower* near *Kauro Point*, S. S. E. $\frac{1}{2}$ S. (*S. $\frac{1}{2}$ E.*) ; and the *North Point of Malta*, *Point Ahrask*, W. by S. (*W. $\frac{1}{2}$ N.*). The N. W. end of the *Bank* lies with the northernmost *Point of Goza*, *Point Schiakcini*, W. N. W. $\frac{1}{2}$ W. (*N. W. by W.*) ; and the *Northern Point of Cumino*, *Point St. Aurica*, W. S. W. $\frac{1}{2}$ S. (*W. by S.*) : here you will have 13 fathoms water. The S. E. end of the *Bank*, in 14 fathoms, lies with *Point Ahrask* W. by S. (*W. $\frac{1}{2}$ N.*), distant $2\frac{1}{4}$ miles ; the *Church of Goza* nearly on with the northern end of *Cumino*, bearing W. $\frac{1}{2}$ N. (*W. N. W.*) ; and *St. Paul's Tower*, over *Salmona Island*, S. $\frac{1}{2}$ W. (*S. by W. $\frac{1}{2}$ W.*). The western rocky part is dangerous, and breaks much with easterly and N. westerly winds.

THE BAY OF MELHEHA, which lies directly to the southward of this *Bank*, is quite open to the northward. In your way from the bank towards it, you have 26, 22, and 12 fathoms, lessening gradually until you reach its further end ; but there is a rocky bank in the middle, of only 9 feet water, which you must be careful to guard against ; on each side of it you will have 5 and 6 fathoms. The village of *Melheha* lies at the further end of the bay, a little way inland ; and S. W. by W. (*W. S. W. $\frac{1}{2}$ W.*) from the southern part of *St. Paul's Bank* there is a fine spring of water, running through a valley, where 20 tons are procured daily. Two or three small batteries are erected upon the points of the bay, to defend the anchorage.

St. PAUL'S BAY. This is divided from *Melheha Bay* by the *Peninsula of Salmona*, on the hilly part of which stands a square building, commonly called the *Salmona Palace* ; and at the extremity of this peninsula is a low and irregularly formed island, named *Salmona Island*, already noticed : this constitutes the northern part of *St. Paul's Bay*. There are a few rocks at its eastern point, extending outward nearly half a cable's length : and at the distance of a cable's length you will have clear ground, with from 10 to 14 fathoms.

The east end of *Salmona Island* and the *Point of Kauro* are distant from each other above one mile, and bear N. W. by W. and S. E. by E. (*N. W. $\frac{1}{2}$ N. and S. E. $\frac{1}{2}$ S.*), the Bay running in W. S. W. (*W. $\frac{1}{2}$ S.*) : the depth of water between the island and the point is 18 fathoms, from whence it lessens to 14, 10, 8, and at the further end 3 fathoms, where there are a sandy beach and a rivulet. About a quarter of a mile to the southward of *Salmona Island* is a patch of foul ground, over which the least depths are $6\frac{1}{2}$ and 7 fathoms. The harbour is open to easterly and north-easterly winds ; but it is a safe place for small vessels, with good holding ground ; and so long as your cables will hold, your anchors will never drag. The best anchorage is abreast of the small cove on your starboard side going in, where you will find from 6 to 10 fathoms, mud and clay. Small vessels may haul into the cove, and lash themselves together in a tier, having an anchor out to the S. S. Eastward, and no winds can injure them. Within *Kauro Point* you will see a square tower and battery, called the *University* :

another battery, *Elbena*, stands three-quarters of a mile further in; and beyond that is *St. Paul's Tower*. There are also three other batteries defending the *Points of the Bay*, two of which are situated near the beach at the bottom of the *Bay*.

From *Kauro Point* the land runs S. E. by E. (*S. E. $\frac{1}{2}$ S.*) for 5 miles, towards the *Lighthouse of Valetta*: within this space the ground is generally rocky and foul; there are, however, some spots of clean ground, and several coves where small craft can run into. One safe place for large vessels to anchor, will be found by bringing the two towers of *St. Paul's Bay* in a line, W. S. W. (*W. $\frac{1}{2}$ S.*); *St. George's Tower* S. $\frac{1}{2}$ E. (*S. by W.*); and the extremes of the land of *Goza* and *Malta*, from W. N. W. $\frac{1}{2}$ N. (*N. W.*) to S. E. $\frac{1}{2}$ S. (*S. S. E.*), in 32 fathoms, coarse sandy ground. S. S. E. $\frac{1}{2}$ E. (*S. by E.*) from this spot, distant 2 miles, and about three-quarters of a mile from *St. George's Tower*, is a rocky shoal, commonly called *St. George's Bank*, with 4, 5, 6, and 7 fathoms over it. Directly South (*S. S. W. $\frac{1}{2}$ S.*) of this bank is the entrance to *St. Julian's Cove*, in the way to which, and abreast of *Gemmuna Point*, is *Spinola Reef*: there is anchorage off this part, but many rocky patches lie about it. Small vessels frequently run into *St. Julian's Bay*; but it is not used by larger ships. One mile and three-quarters from *St. Julian's Bay* are the *Castle* and *Lighthouse of St. Elmo*, in latitude $35^{\circ} 54' 6''$ N., and longitude $14^{\circ} 31' 10''$ E.

VALETTA. *Marsamuscit*, and the *Grand Port of Valetta*, are separated by a rocky peninsula, on which stands the *City of Valetta*, with its suburb *Floriana*. The *lighthouse*, already spoken of, is at the extremity of the point, and built upon *Fort St. Elmo*, which defends the entrance of both the ports. On the south side of the *Grand Port* are two other peninsulas, pointing towards *Valetta*, and forming excellent harbours. On the first of these is situated the *Castle of St. Angelo*, with the *Town of Vittorioso*; and on the second stands the *Town of Isola*, or *Sanglea*; southward of which is *Burmola*, and the fortification called the *Cotonera*.

The inlet on the eastern side of *Vittorioso* is *Port Renella*; that on the western side, *Porto Galera*; and that to the west of *Sanglea*, *Port Sanglea*. The promontory which forms the north side of *Marsamuscit* is named *Point Dragut*, and has *Fort Tigne* at its extremity; while that which is the southern point of the entrance to the *Grand Port*, is called *Ricasoli*, and has a most extensive fortification of that name to defend it.

The houses are built of stone, and have a neat appearance: their roofs being flat, have pipes affixed, which by that means conduct all the rain-water to their cisterns, which is carefully preserved. In coming from the eastward or northward, the round *Light Tower of St. Elmo* will have the appearance of a sail: you will then, as you approach, discover the white cliffs and church near the S. E. end of the island. Outside of *Valetta Harbour* the water is deep, from 60 to 80 fathoms, and the bottom is soft mud and clay.

The *Harbour of Valetta* is large and commodious: its entrance is 250 fathoms wide, and there are two warping buoys on the outside of it, between which is a fair channel for the largest ships. A spit runs off the *Point of St. Elmo*, having foul ground to the distance of 50 fathoms; the spit extends outward about 170 fathoms, with from 4 to $7\frac{1}{2}$ fathoms over it: the shoal part, within which a ship might strike, is marked by a can-buoy. There is also a small reef on the eastern side, having 17 feet over it, and extending from 20 to 30 fathoms from *Point del Orsa*, close to which are 5 and 6 fathoms. In entering, bring the stone sentry-box at *Point Sanglea* open to the southward of the whole of the *Valetta* side of the harbour; and should there be contrary winds, or a calm, you can anchor at the entrance, and warp in. The entrance being so narrow, and the wind commonly so variable outside the harbour, it is by no means advisable to turn in; and strangers should always take a pilot on board.

Anchorage. In sailing in, always keep nearer to the western shore, for it is bold-to, and not so subject to sudden gusts of wind as the opposite side. You can anchor any where along the side of the town, from the *Pratique Office* to *Floriana*, having one anchor to the southward, and a cable on shore. There is also good anchorage in *Bighi Bay*, which is just to the westward of *Fort Ricasoli*, during the summer months; but as it is exposed to northerly winds, which send in a heavy sea, it should not be adopted in winter. A warping-buoy is placed in the middle of this harbour; but the best anchorage for men-of-war will be above *Sanglea Point*, in the inner harbour, bringing that point to bear E. N. E. $\frac{1}{2}$ E. (*East*), and the *Dome of Floriana Church* W. N. W. $\frac{1}{2}$ N. (*N. W.*), or N. W. $\frac{1}{2}$ W. (*N. W. by N.*), in 10 or 11 fathoms. Moor with the small bower to the N. westward, and your best bower

N. eastward, so as to have an open hawse with the wind in. Water may be had in any quantity, and wood may be procured; but the latter is rather a scarce article, being all brought from the *Island of Sicily*.

MARSA MUSCEIT HARBOUR is commonly used by vessels performing quarantine. On its western side are a *Fortress* and *Lazaretto*, the latter being upon the southern part of *Manuel Island*. This branch is at its entrance not more than 150 fathoms wide, and defended by *Fort Tigne*: there is a little reef on the northern side, of 2 and $2\frac{1}{2}$ fathoms. To avoid this reef, keep *Ricasoli*, as you enter, open of *Point St. Elmo* until you open *Fort Manuel*; then, if with a fair wind, steer for the S. E. part of the *Island*, or keep mid-channel, passing the warping-buoy which lies at the entrance. Take the starboard side in going in, for this is steep-to, and the larboard side has some shoal spots stretching off it.

Should the wind be scant or contrary, you may anchor off the entrance in 14 or 15 fathoms, and warp in. Guns and stones are fixed along both sides, to which you can make fast. The best anchorage will be above the *Lazaretto*. Moor with the best bower to the eastward, and the small bower to the westward; but there is not room enough to moor athwart the harbour with more than half a cable each way. Merchant vessels moor with an anchor ahead, and stern-fasts on shore. The *Pratique Office* is opposite to *Fort Manuel*, and water may be obtained on the *Valetta* side, for vessels in quarantine, nearly opposite to the *Lazaretto*.*

Outside the *Harbour*, and to the south-eastward of the entrance of *Valetta*, the ground is good in from 22 to 40 fathoms; and E. by N. (*E. $\frac{1}{2}$ S.*) from *Valetta*, n about 58 fathoms, mud; also off *Marsa Scala*, in from 35 to 60 fathoms; but off the *Harbour of Marsa Scala* the bottom is rocky; and between *Marsa Scala* and *Marsa Scirocco* there is no safe anchorage.

MARSA SCALA. S. E. $\frac{1}{2}$ E. (*S. E. $\frac{1}{2}$ S.*), distant nearly 3 miles from *Valetta*, s the entrance to *Marsa Scala*. In your way you will pass the *Towers of Gratia*, *Sargo*, and *Zoncor*; the latter of which stands at the northern entrance of the *Port*. On the southern side is *St. Thomas's Castle*: this is a small place, and shallow, fit for small craft only. The coast here forms a kind of bay, terminating to the S. eastward with a whitish cliff; and from this cliff a reef extends E. N. E. $\frac{1}{2}$ E. (*East*), a full mile and a half: it is narrow, and has from 5 feet to 9 fathoms over it, being steep-to on both sides, and having 17 and 19 fathoms at its extremity. The marks for this reef are a windmill on with the south end of the house which stands before it; this is the thwart-mark, shewing the direction of the reef: the long mark for its outer point is a small house on the side of a hill, on with the southernmost of three towers, which appear lying in a triangular form, and bearing W. N. W. $\frac{1}{2}$ N. (*N. W.*), or *St. Thomas's Tower* W. $\frac{1}{2}$ S. (*W. by N.*), and *Point Schawopologan* S. W. (*W. S. W. $\frac{1}{2}$ S.*), distant $1\frac{1}{2}$ mile. Ships bound to *Valetta*, and coming round the eastern shores of *Malta*, should take care to give this shoal a wide berth.

MARSA SCIROCCO. From *Point Schawopologan*, the easternmost *Point of Malta*, the shores bend irregularly, S. by W. $\frac{1}{2}$ W. (*S. W. by S.*), $1\frac{1}{2}$ mile, to *Point Della Mare*, which is the south-eastern *Point* of the *Bay of Marsa Scirocco*: off this *Point* lie some rocks, one of which is called the *Rock of Itactia*, within which is

* The following official Notice respecting Quarantine Dues has been issued by the Government of *Malta*, dated January 1st, 1830:—

Every vessel arriving with a clean Bill of Health, and not exceeding 50 tons, is to pay into the Quarantine Office at *Malta*, 16s. 8d.; not exceeding 100 tons, 25s.; not exceeding 200 tons, 41s. 8d.; above 200 tons, 50s.

Vessels arriving with a foul Bill of Health, are to pay double; and all vessels from *Turkey*, in *Europe*; the *Isles of Cyprus*, *Candia*, the *Morea*, *Anatolia*, *Syria*, or *Egypt*, or from any of the adjacent *Islands*, are to be considered as having a touched Bill of Health, and are liable to the double rate when the Plague does not exist in those places.

Vessels performing quarantine, not exceeding five days, and those waiting for convoy, without engaging in mercantile purposes, or while remaining in the Quarantine Harbour, to pay 3s. 4d. per day. The Quarantine Duties on goods are fixed at half per cent. *ad valorem*, when brought by, or landed from, vessels performing above five days' quarantine, and less than ten: and the Duty is to be levied on all goods performing ten days' quarantine and upwards, whether admitted to *Pratique* on board, landed, or transhipped, cotton-wool exported for England, after depuration, excepted. Horses, asses, or mules, landed on the *Lazaretto*, are to pay 5s. each; bullocks 2s.; sheep, goats, and pigs, and other small animals, 1s. From each apartment occupied by persons performing quarantine in the *Lazaretto*, an entrance fee of 16s. 8d. shall be levied, and 2s. 6d. per day paid for guards; and for the Office Certificate 4s. 2d.

the *Island Limare*. There is no passage between *Point Della Mare* and this island, except for boats. S. W. by W. (*W. S. W. $\frac{1}{2}$ W.*), distant $1\frac{1}{2}$ mile from *Point Della Mare*, is *Point Benhisa*, in latitude $35^{\circ} 49' 0''$ N., and longitude $14^{\circ} 33' 0''$ E., the S. western point of the Bay, which is formed by the elevated land of *Vermia* on the eastward, and by the *Point of Benhisa* to the west: both these points are defended by a square tower; and there also is a battery on *Point Della Mare*, called the *Zondaro Battery*. Directly facing the entrance of the harbour is the *Castle of St. Lucian*, standing on a broad point of land, and separating the upper part of the Bay into two divisions. This *Castle of St. Lucian* is in latitude $35^{\circ} 50' 15''$ N., and longitude $14^{\circ} 32' 30''$ E., and forms an excellent mark for entering, and going out of the harbour. To lead clear of the shoals off *Point Della Mare* and *Benhisa Reef*, bring the *Castle N. N. W. $\frac{1}{2}$ W.* (*N. by W.*). The different points of the Bay are well defended by forts and batteries; and a sandy reef of shallow water runs all round the Bay. *Benhisa Reef* is at the entrance of the Bay; it lies in the direction of S. E. and N. W. (*S. S. E. $\frac{1}{2}$ E.* and *N. N. W. $\frac{1}{2}$ W.*), being one mile long, and about a quarter of a mile broad: this reef has over it from 3 to 7 and 9 fathoms; while the depths around it are from 10 to 14 and 20 fathoms. Towards the northern part of this reef there is a *swashway* of 10 and 11 fathoms: there is also a passage between its northern end and the shore, with $5\frac{1}{2}$, 6, and 7 fathoms in it. The thwart-mark for the reef is *Zeitun Church*, distinguished by two spires and a cupola, bearing N. N. W. $\frac{1}{2}$ W. (*N. by W.*), and being on with the north-eastern part of *St. Lucian's Castle*; and its outer end lies with a broken-headed tower at *Schawopalogan Point* bearing N. N. E. (*N. $\frac{1}{2}$ E.*) on with the *Tower of Della Mare*. In entering from the N. E., you must not shut in these marks one with the other; and when coming from the S. westward, keep the long-mark well open until *Zeitun Church* is a sail's breadth to the northward of *St. Lucian's Castle*, which will carry you clear.

Marsa Scirocco is a safe harbour, unless with southerly winds, and these do not always blow home: the ground is good, and holds well, with from 15 to 5 fathoms; and the safest part will be on the N. E. side. Men-of-war and large ships anchor outside the Bay any where to the N. eastward of the *Benhisa Shoal*, or about half a mile off it, in from 20 to 22 fathoms. *Benhisa Point* shelves down gradually, which makes the passage, to the northward of the reef, and between it and the point, unsafe, especially with vessels drawing much water; for near the point there are only 3 fathoms, and there will rarely be any necessity for such a vessel to take it: but should she do so, it will be better for her to borrow near to the reef than to the point, keeping as much as possible in 6 fathoms. This reef serves to defend the harbour from much sea during the prevalence of south-westerly winds.

All along the southern coasts of *Malta* the water is deep, the coast precipitous and cliffy, and no good anchorage throughout. Sailing along, about a mile off the land, you will see a remarkable high rock, called the *Filfolia Rock*, lying W. S. W. (*W. $\frac{1}{2}$ S.*), distant 6 miles from *Benhisa Tower*, and 2 miles off *Malta*. There are a few small rocks about it; two of those at its western end are called *Santa Maria*: between these and *Malta* the depths are from 27 to 37 fathoms. The ground to the eastward is sand, with shells and mud; but that to the westward is coral, and further on, sand, clay, and mud. The tide is hardly visible, and the current most commonly sets southward and eastward.

Filfolia Rock is in latitude $35^{\circ} 46' 30''$ N., and longitude $14^{\circ} 28' 30''$ E.

HURD'S BANK. This Shoal was discovered and surveyed by Captain Smyth, who has laid its northern part E. N. E. (*E. $\frac{1}{2}$ N.*), distant 12 miles from the *Lighthouse of Valetta*, and its southern part E. $\frac{1}{4}$ N. (*E. $\frac{1}{4}$ S.*), distant $10\frac{1}{2}$ miles, extending N. N. E. and S. S. W. (*N. E. $\frac{1}{2}$ N.* and *S. W. $\frac{1}{2}$ S.*) more than 3 miles, and being about one mile broad. Its southern part is rocky, having 41, 32, 33, and 36 fathoms over it; on its middle are 27 fathoms; and on its northern part are 17, 19, 22, 28, 30, 33, and 36 fathoms, with a bottom of gravel. Round this bank the water deepens to 51, 54, 67, 56, and 70 fathoms; and midway, between it and *Valetta*, are 70 fathoms, sand and clay. The centre of *Hurd's Bank* is in latitude $35^{\circ} 58' 0''$ N., and in longitude $14^{\circ} 46' 0''$ E.

4. THE PELAGIE ISLANDS; COMPREHENDING LINOSA, LAMPEDUSA, AND LAMPION.

LINOSA is an island of irregular form, and nearly square; it is of volcanic origin, and about 6 miles in circumference. About half a mile from its N. eastern side is the extinct crater of one volcano; and there are three others more to the southward. Captain Smyth thinks the fires of these must formerly have been very intense, as pumices, and the most perfect and obdurate vitrifications appear among the lavas. There are three hilly ranges, with good vallies between, covered with a varied but uncultivated vegetation. Captain Smyth did not, on his first visit, find any living creatures on the island, except hawks; he therefore placed some rabbits and goats, and these have thriven prodigiously. This island is of moderate height, and will, in clear weather, be seen 10 or 12 leagues off: at a distance it will seem like two islands, but on nearing, it will lose this appearance. The approaches on all sides are bold, carrying from 20 to 10 fathoms close in; at the distance of a furlong, you will have 50 and 60 fathoms; and a little further off, 100 and 150 fathoms. Off the southern side the bottom is rocky; off the western and eastern sides, is generally a black sand. The S. E. point (*Strepito*) is high and bluff; the S. W. point (*Sciarazza*) low and craggy.

On the western side is a Cove, apparently formed by the falling in of one side of a crater: boats may land here on a beach of fine trituerated sand, but there are no inhabitants. This Cove is in latitude $35^{\circ} 51' 50''$ N., and longitude $12^{\circ} 52' 9''$ E. Point *Strepito*, the S. eastern Point of *Linosa*, bears from Cape *Demetria*, in *Goza*, W. by S. ($W. \frac{1}{2} N.$), distant 21 leagues; and from Point *Nica*, in *Pantellaria*, to the northern Point of *Linosa*, the bearing and distance are S. E. $\frac{1}{2}$ S. (nearly S. S. E.), 23 leagues.

LAMPEDUSA. This island is now a dependency of *Sicily*, and bears S. W. by S. ($S. W. \frac{1}{2} W.$) from *Linosa*, distant 26 miles: it lies nearly East and West ($E. S. E.$ and $W. N. W.$), being about 6 miles long, and $1\frac{1}{2}$ mile broad; its surface is nearly level, but its coasts are abrupt and craggy, except towards the south-eastward, where it slopes down from the height of 400 feet to a low beach, indented with several small coves. The northern coast is steep-to, having 35 and 40 fathoms within 400 fathoms of the shore; but the southern coast is rather shallow, and the soundings more gradual, there being 34, 35, and 37 fathoms within a mile of the land; and thence decreasing to 19, 13, and 10 as you approach it. Here you will see an old tower; by bringing this to bear N. E. by N. ($N. E. \frac{1}{2} E.$), you may obtain good anchorage in 17 or 18 fathoms water, the bottom being gravel and sand: but there are a few foul spots hereabout, so that a chain-cable had better be let go.

The Harbour of *Lampedusa* is situated near its south-east end, in latitude $35^{\circ} 29' 19''$ N. and longitude $12^{\circ} 35' 10''$ E. It is about 400 yards wide at its entrance, and runs in N. E. by N. ($N. E. \frac{1}{2} E.$) full half a mile: if you are about to sail into it, steer in on that bearing, or anchor and warp in, for there is scarce room to tack: the rocks on the sides of the harbour have been cut, to receive the fasts of small vessels, and to facilitate the carrying out of hawsers. There is hardly room enough, though the water is sufficiently deep, for a frigate, unless by fasts to the shore. The western point of the harbour is called *Wiglia Point*; the eastern point is named *Cavallo Bianco*; on a low but projecting point, facing the entrance of the harbour, is the old castle already mentioned. The landing-place is at a little creek in the point, on which stand the castle, a little chapel, a storehouse, and some ruins. The best berth in the harbour will be obtained by getting opposite to the Castle Point, *Wiglia Point* bearing S. W. by W. ($W. S. W. \frac{1}{2} W.$); the patch of *Cavallo Bianco* South ($S. by W. \frac{1}{2} W.$); and the Castle N. by E. $\frac{1}{2}$ E. ($N. E. by N.$). The upper part of the harbour forms three sandy coves, but of shallow water, and the bottom of the bay is mostly soft mud.

This island has for many years remained uninhabited; but latterly an attempt has been made to form a settlement there, and a farm established by Mr. Fernandez, who, with a few Maltese peasants, has placed the eastern end of the island in a state of cultivation, dividing it from the western part by a strong wall, which stretches from the harbour quite across the island. The soil is said to be good; and there are plenty of wild goats, dwarf olives, and a great variety of uncultivated plants, of which firewood is made and exported to *Malta* and *Tripoli*: fish are plentiful, and wild-fowl abundant; but in May they are frequently visited by the Numidian cranes, which occasion great destruction to the produce of the Fernandez farm.

In making the Island of *Lampedusa* from the westward, you will first see Cape

Ponente, the western point of the island, which is a steep and perpendicular cliff, that any vessel may round at a furlong's distance; and proceeding along the southern coast, at the distance of $2\frac{1}{2}$ miles to the eastward of *Cape Ponente*, you will meet with an islet, and two rocks near it. The islet is called the *Rabbit*; the two rocks are the *Conies*: the larger *Coney* is moderately high, but the western or lesser *Coney* is low, and at a distance appears so exact a continuation of the coast, that it is difficult to make it out in passing; but all this part is bold-to, and without danger. You may keep the shore on board all the way from *Cape Ponente* to *Wiglia Point*, only giving these *Coney Rocks* a small berth.

LAMPION. This is a small, steep, and triangularly shaped rocky islet, not above 400 fathoms in length from N. to S., and 100 fathoms broad: the surface is so flat, that at a distance it appears like a wall, but there are the remains of many ancient buildings upon it. On its West, N. E., and S. W. sides the cliffs rise from 120 to 140 feet, sloping down on the eastward to a low point, much frequented by seals. Except this point, where a shoal extends out to the length of a furlong, all its sides are steep-to; the depths around being from 15 to 50 fathoms, sand and stones. This islet is in latitude $35^{\circ} 33' 10''$ N., and longitude $12^{\circ} 19' 10''$ E. It bears from *Cape Ponente* W. N. W. $\frac{1}{2}$ W. (*N. W. by W.*), distant 8 miles; and from the S. W. Point of *Linosa* S. W. by W. (*W. S. W. $\frac{1}{2}$ W.*), 33 miles.

SECTION IX.

THE SOUTHERN COAST OF ITALY; AND THE ADRIATIC SEA, OR GULF OF VENICE.

1. SOUTHERN COAST OF ITALY, FROM CAPE SPARTIVENTO TO CAPE OTRANTO.

Variation, One Point and a Half West.

CAPE SPARTIVENTO, in latitude $37^{\circ} 55' 45''$ N., and longitude $16^{\circ} 3' 15''$ E., is the south-eastern point of the Promontory of Upper Calabria, and bears from *Cape Passaro* in Sicily N. N. E. $\frac{3}{4}$ E. (near N. E. $\frac{1}{2}$ E.), distant 30 leagues. Upon it is a watch-tower, and a little to the westward of that a small battery. The shore is steep, and soundings extend a long way out, increasing from 26 to 450 fathoms: the latter depth bears S. E. (*S. S. E. $\frac{1}{2}$ E.*) of the Cape, distant 13 miles. From *Cape Spartivento* the coast rounds north-easterly towards *Bruzzano Point*, a distance of $8\frac{1}{2}$ miles: within this space, and about $3\frac{1}{2}$ miles from *Cape Spartivento*, there are some sunken rocks, which lie opposite to the Rivulet of *Razzi*, and run up to the Town of *Brancaleone*, about $1\frac{1}{2}$ mile inland: the shore from hence towards *Bruzzano Point* is all shallow, and should have a berth in passing. Upon *Bruzzano Point* is a watch-tower; and 3 miles inland is the Town of *Bruzzano*. Off the Point, and also off a point to the northward of *Bruzzano*, are several rocks. From *Bruzzano Point* the shore runs N. (*N. by E. $\frac{1}{2}$ E.*), for about 7 miles, to the River *Careri*, passing the Church of *Saint Stefano*, the Town of *Garaffa*, and the Village of *Bianca Nova*: near this latter is the *Fort Pagliano*; and inland, to the northward, you will see the Town of *San Luca*. From the River *Careri*, about N. E. by N. (*N. E. $\frac{1}{2}$ E.*), 15 miles, is the River *Romano*, running up to the Town of *Gioiosa*. The shore throughout is low, but rises inland, and within this space are the Villages of *Ardore*, *San Hilario*, and *Gerace*; with the towers of *Conolungo*, *Porto Salvo*, and *Spina*. The land now turns easterly to the Town of *Roccella*, behind which the land is elevated. Four and a half miles beyond *Roccella* is the Tower of *Camillare*, and further on that of *San Fili*, two miles from which is *Point Stilo*; and between these, a little way inland, the Village of *Riace*. There are several rivulets in the space between *Cape Spartivento* and *Point Stilo*, but none that are navigable; and the whole shore is low and sandy, without harbour or

place of shelter, although there are soundings out to a considerable distance from the land, gradually deepening to seaward.

GULF OF SQUILLACE. *Point Stilo* is the southern point of this Gulf, and lies in latitude $38^{\circ} 28' 20''$ N., and longitude $16^{\circ} 35' 0''$ E., its northern point being *Cape Rizzuto*. About a mile from *Point Stilo* is the *Tower of Verdera*; nearly 4 miles to the north of which is the little *River Cerauni*, upon the banks of which is situated the *Town of Guardavalle*. The coast here takes a N. by W. ($N. \frac{1}{2} E.$) direction, to *Point Stellati*, a distance of 16 miles; within which space are many rivulets, and the *Towers of San Antonio* and *Paliporto*. Inland are the *Town of San Andrea* and several villages. Upon the *Point Stellati* is the *Tower of Coscia*; and behind it, on the banks of the *River Alessi*, is the *Town of Squillace*, which gives its name to the Gulf. The land now turns more easterly ($N. N. E. \frac{1}{2} E.$), passing *Rocellata*, *Corace*, *Catanzaro*, *Alli*, *Petrizzi*, *Guido*, *Croccia*, *Botro*, *Magliacane*, and the *Towers of Leonardo* and *Brasolo*. Off *Leonardo* is a little rocky reef, which you should steer clear of. You will now arrive at *La Castella*: this town is situated upon a point of land bearing N. E. by E. ($E. N. E. \frac{1}{2} N.$) distant 22 miles from *Point Stellati*: it has a fortification round it, and to the southward ($S. S. W. \frac{1}{2} S.$), one mile from its point, a *sunken rock*, between which is a channel with 6 fathoms water in it, and 13 fathoms just outside of the rock. E. $\frac{1}{2}$ E. ($S. E. by S.$) from *La Castella*, distant $5\frac{1}{2}$ miles, is *Cape Rizzuto*, the north-eastern point of the *Gulf of Squillace*, in latitude $38^{\circ} 57' 0''$ N., and longitude 17° E. This is a low point of land, with a *light-tower* upon it, which is visible a great way off, and appears at a distance like a sail. There is also a little reef running off the Cape in a S. westerly direction, which must be avoided. Within the whole of this Gulf there is no anchorage, except with off-shore winds; and with any other it ought to be avoided.

Having passed *Cape Rizzuto*, in not less than 12 fathoms water, you will steer out easterly, to avoid a *sunken rock* which lies E. N. E. ($E. \frac{1}{2} N.$) from its point; for although there is a passage between it and the Cape, with sufficient water, yet it will always be advisable for shipping to go outside of the danger. From *Cape Rizzuto* to *Cape Cimiti* the course and distance are E. N. E. $\frac{1}{2}$ N. ($E. by N.$), 7 miles; and from *Cape Cimiti* to *Cape Nau* or *Colonne* N. E. $\frac{1}{2}$ N. ($N. E. by E.$), 6 miles: between the former is the *Wood of Bonace*; on *Cape Cimiti* is the *Tower of Manna*, and inland is the *Town of Isola*. A little to the northward of the Cape is a rock lying close to the shore; and about the Cape of *Nau* are several rocks, one of which lies almost a mile out from the point, with 5 fathoms water in the channel between them. *Cape Nau* runs out a considerable way into the sea, and has a tower upon its summit. It is in latitude $39^{\circ} 5' 30''$ N., and longitude $17^{\circ} 13' 45''$ E.

CROTONA, OR CORTORNE. N. W. by W. ($N. W. \frac{1}{2} N.$) from *Cape Nau*, distant 4 miles, is the *Port of Cortrone*, a place formerly of considerable consequence, but now dwindled into a poor town, with a population of 5000, who export a little corn and cheese. The situation is unhealthy, and its harbour neglected; so that vessels having inclination to go there, must lie in the open roadstead. There are the remains of two piers; but the shore from *Cape Nau* to *Cortrone* has many rocks scattered about, making a too-near approach dangerous.

From *Cortrone* to *Point Alice* the land runs N. $\frac{1}{2}$ E. ($N. N. E. \frac{1}{2} E.$), 19 miles: between these are some towers and rivulets, but none of any consequence to the mariner, of which latter the *River Neto* is the largest. Inland is the *Town of Strongoli*: the shore is low and sandy, but affords no good shelter or place of anchorage.

GULF OF TARENTO. This gulf is bounded on the S. W. by the *Point of Alice*, in latitude $39^{\circ} 24' 15''$ N., and longitude $17^{\circ} 10' 0''$ E., and on the S. W. by the *Cape St. Maria di Leuca*. These points bear from each other E. N. E. and W. S. W. ($E. \frac{1}{2} N.$ and $W. \frac{1}{2} S.$), distant 60 miles; and midway between them there is no ground with a line of 400 fathoms. From *Point Alice* to the entrance of the *Port of Tarento* the course is North ($N. by E. \frac{1}{2} E.$), distance 58 miles. All the western coast of this gulf is destitute of any harbours or places of safety: there are some spots where, with fair weather and an off-shore wind, a vessel may occasionally stop, but not any to remain long in: we will, therefore, just give these a brief description. Pursuing a N. W. course from abreast of *Point Alice*, about 7 miles, you will reach *Point Fiumenica*, upon which a tower is erected. Vessels may anchor, with fair weather and off-shore winds, a little to the northward of *Point Alice*, in 5 or 7 fathoms, a quarter of a mile off the shore. Having rounded *Point Fiumenica*, you will see the *Town of Cariati*, distant three miles W. N. W. $\frac{1}{2}$ W. ($N. W. by W.$): here vessels may also ride for a short time, if occasion require.

From *Cariati* to *Punta dell Trionto* the course is N. W. by W. (*N. W. $\frac{1}{2}$ N.*) 11 $\frac{1}{2}$ miles: the land then turns West (*W. N. W. $\frac{1}{2}$ W.*). About 5 miles from *Punta dell Trionto* you will see the *Tower of St. Angelo*, behind which, more than 2 miles inland, is the *Town of Rossano*. The coast now winds to the northward, circularly to *Punta de Cascio*: this *Point* is formed by the *River Coscile*, which passes on each side of it, making it an island; it bears from *Punta dell Trionto* W. N. W. (*N. W. $\frac{1}{2}$ W.*), distant 14 miles. From *Punta de Cascio* to *Cape Spulico* the course is N. by E. (*N. N. E. $\frac{1}{4}$ E.*) distant 16 miles: midway between these is the *Town of Trebisacce*, and inland is *Mount Carboni*. Off *Cape Spulico* is a kind of whirlpool; and upon the *Cape* is a watch-tower. One mile and a half beyond the *Cape* is the *Castle*, and behind it the *Town of Roseto*; near the *Castle* is a rock above water. The coast in this part runs nearly north for full 2 $\frac{1}{2}$ leagues, along which are several rocks scattered about; but they are all above water, and close in to the land, except one, which lies about a mile S. S. E. (*S. $\frac{1}{2}$ E.*) from *Linzano Tower*, and directly opposite to the *Canal of Armi*: this rock is about half a mile from the shore, having 5 fathoms between it and the land, and 9 and 10 fathoms on its outer side. Inland, about 1 $\frac{1}{2}$ mile from the *Linzano Tower*, is the *Rocca Imperiale*, built on a rising ground, and very conspicuous. It is here the division takes place between *Upper* and *Lower Calabria*. From *Cape Spulico* to the entrance of the *River Sinno*, the course and distance are N. by E. (*N. N. E. $\frac{1}{4}$ E.*), 10 miles. *Sinno* is a considerable river, and rises a great way inland, all a low open sandy beach, without shelter.

One mile and a half N. by E. $\frac{1}{4}$ N. (*N. N. E.*) from the entrance to the *River Sinno*, is the *Torre della Vena*, whence the land stretches N. E. by N. (*N. E. $\frac{1}{2}$ E.*) 20 miles, with the *Towns of Policoro* and *Torre a Mare*, the *Towers Mozza*, *Scazzano*, *Salandrella*, and *Mattoni*, and *Rivers Vena*, *Agri*, *Cavone*, *Vassento*, *Bradana*, and *Galesa* between. This is all low sandy land, but affords no port, or shelter for shipping. Having passed the *Mattoni Tower* one league, the coast turns more easterly, becomes woody, and continues so almost so far as *Taranto*, having within this space the *Tower del Lato*, surrounded with trees; the *Rivers Lato*, *Lenna*, the *Marshes of Molitana*, and *Wood of Zuccherito*; behind, and 2 leagues inland, are the *Towns of Palagianò and Massafra*.

THE BAY OF TARENTO is situated between the two *Points of Rondinella* and *St. Vito*, having two islands, *St. Pietro* and *St. Paolo*, right before it. The *Town of Taranto* is in latitude 40° 28' 0" N., and longitude 17° 13' 0" E., at the further end of the *Gulf*, and built upon an island. It is a strong and populous place, defended by a castle, and joined to the main by two bridges: formerly it was a place of considerable note; for the surrounding country is extremely fertile, and a brisk trade was constantly carried on in fish, principally caught in the *Mare Piccolo*; but latterly this has degenerated. Its inner harbour is much choked up, and gone to decay. Into its Bay are three entrances; but the easternmost is the largest and best. These entrances are formed by two islands before mentioned, that towards the west being called *St. Pietro*, and the other *St. Paolo*; between the latter and *Point St. Vito*, upon which is a watch-tower, is a good channel with 10 and 20 fathoms, but from *St. Vito* to the middle of the channel is a rocky bank, which requires some caution to avoid; it bears from the northern part of the point W. N. W. $\frac{1}{4}$ N. (*N. W.*), and runs out a full mile, leaving the channel between it and the *Island Paolo* only half a mile wide: the water round it is deep. Between *St. Paolo* and *St. Pietro* are no more than 3 or 3 $\frac{1}{2}$ fathoms; but between *St. Pietro* and *Point Rondinella*, upon which another tower is built, are 4, 5, and 6 fathoms: within this Bay is good anchorage to the westward and southward of the town. In this northern passage considerable caution is requisite; for from the northern point of *St. Pietro*, a rocky shoal extends out 1 $\frac{1}{2}$ mile in the direction of the *River Tura*; and midway between *St. Pietro* and *Torre Rondinella Point*, is a knoll of 1 $\frac{1}{2}$ fathom. In entering you must borrow towards the *Point of Rondinella*, and pass it at about the distance of half a mile in 3 $\frac{1}{2}$, or come to anchor in 5 or 6 fathoms, the tower bearing N. E. $\frac{1}{4}$ E. (*E. N. E.*), distant not more than three-quarters of a mile, and warp in. The ground is good, being soft mud; and the water sufficiently deep for any vessel.

Point St. Vito is also encumbered with a rocky reef running out southward, having deep water at its edge; vessels therefore must give it a good berth in passing. From abreast of *Point St. Vito*, your course will be about E. S. E. (*S. E. $\frac{1}{2}$ E.*) 17 miles, to the *Tower* and *Cape dell' Ova*, passing several towers, villages, and rivers, the shore being chiefly low and sandy: inland you will see the *Towns of Pulzano*, *Monacizzo*, and *Maruggi*. Give *Cape Ova* a berth, it being surrounded by rocks under water, forming a bank, at the edge of which are 8, 9, and 12 fathoms, and a little further out, 30, 40,

50, and 100 fathoms. From hence an E. $\frac{1}{4}$ S. (*E. S. E.*) course will clear the *Point and Tower of Columena*, the land all low, and covered with trees, and the soundings extending a great way out. Nearly E. S. E. $\frac{1}{4}$ E. (*S. E. $\frac{1}{4}$ E.*) from *Columena*, distant 5 miles, is the little *Port of Cesario*, very difficult of entrance, and consequently resorted to by those only who are well acquainted with it: at its mouth lie several small *islands*, almost blocking up the passage. From hence a South (*S. by W. $\frac{1}{4}$ W.*) course will take you direct to *Gallipoli*.

GALLIPOLI. The *Port and Town of Gallipoli* are known, as you approach, by some *islands* lying off them, upon the westernmost of which, *St. Andrea*, stands a *lighthouse*; between these islands are 5 and 6 fathoms, and between them and *Point Gallipoli* 9, 10, and 12 fathoms. The *City of Gallipoli* is built upon a *peninsula*, and fortified all round; it lies in latitude $40^{\circ} 3' 0''$ N., longitude $17^{\circ} 58' 0''$ E., and has a population of 8 or 9000: their exports are principally oil and cotton. To the eastward is a good road, where you may lie sheltered in S. W., S. E., and N. E. winds. If you would go into the road, and ride before *Gallipoli*, you should sail outside the islands, and anchor before the *City* in 10, 11, or 12 fathoms: the *lighthouse* will then bear S. W. $\frac{1}{4}$ W. or S. W. $\frac{1}{4}$ S. (*S. W. or S. W. by W.*), and you will lie within shot of the *castles*. An easterly wind blows off-shore, and a southerly one right off the *City*. You must not anchor or come nearer than within gun-shot of the *City*, because of a *rocky ank* under water; but between the islands you may sail as occasion serves. From the *Island of Andrea* a *bank* extends about 2 miles to the westward, upon which the depths are from 6 to 12 fathoms: near the edge of this *bank* the water suddenly drops into 50 and 54 fathoms. There are soundings all along the shores, and the bottom is generally lay; but the middle of the *Gulf* is extremely deep. *Gallipoli* bears from *Point Alice* N. E. (*E. N. E. $\frac{1}{4}$ N.*), distant 52 miles; from *Cape Nau* N. N. E. $\frac{1}{4}$ E. (*N. E. $\frac{1}{4}$ E.*), distant 65 miles; and from *Cape St. Vito* E. S. E. $\frac{1}{4}$ S. (*S. E. $\frac{1}{4}$ S.*), 41 miles.

S. S. E. (*S. $\frac{1}{4}$ E.*), distant 4 miles from the *Town of Gallipoli*, is the *Tower dell Pizzo*, standing on a point of the same name, before which a *rocky reef* runs out. Between *Gallipoli* and this point is a kind of low sandy bay; but from the *Tower of Pizzo* southward, the coast is *rocky* for $7\frac{1}{2}$ miles: you will here pass a few projecting points, one of which is the *Tower of Suda*, and further on that of *Sufino*. A little beyond this the *rocky coast* ends: here you will see the *Scoglio de Pazzi*, a *rock* above water. From hence the land winds S. E. $\frac{1}{4}$ E. (*E. S. E. Easterly*), and a *sandbank* extends full 4 miles, having from 20 fathoms at its southernmost part, to very shallow water near the shore: this is named *Le Seche d' Ugento*. Upon this *bank* are two dangerous *rocky boats*, *Il Cavallo* and *La Guimenta*, which you should be particularly careful to avoid, the water round them being very shallow. Over these *rocks* are not above 2 and 3 feet; between them are 3 fathoms, and round them 4 and 5; between the *Cavallo* and *Muzza* are 4 fathoms.

E. $\frac{1}{4}$ S. (*E. S. E.*) from the *Scoglio de Pazzi*, distant $1\frac{1}{2}$ mile, is the *St. Giovanni Tower*, having some *rocks* near it, both under and above water; between the tower and the latter small craft sometimes run in and anchor. The *Tower of Muzza* is nearly 3 miles further. A *rocky bank* runs along the shore from about half-way between *Giovanni* and *Muzza*, to the *Islet della Fanciulla*: there is also a *rock* above water, lying W. by S. (*W. $\frac{1}{4}$ N.*), $1\frac{1}{2}$ mile from *Muzza Tower*, called *Girrito*, round which are 4 fathoms. Another *rock*, called *Mogorone*, lies close into the land, and near the tower.

The *Island Fanciulla* is very near the shore, and behind it stands the *Torre delli Peki*: several small *rocks* above water lie about it, and the water is very shallow. E. $\frac{1}{4}$ N. (*E. S. E. $\frac{1}{4}$ E.*), distant 3 miles from *Fanciulla*, is the *Torre del Vado*, and further on *Torre St. Gregorio*: almost as far as *Vado*, a flat extends of 1, 2, and 3 fathoms water, but with 10, 12, and 15 fathoms at its edge.

From what has been said, it will always appear requisite for the mariner to give the above low part of the coast, from the *Tower of Sufino* to the *Tower of Vado*, a good berth. At the *Torre St. Gregorio* the land rises up, and becomes *rocky*, running S. E. $\frac{1}{4}$ E. (*S. E. by S.*) about $2\frac{1}{2}$ miles to *Point Ristola*. About half-way between is the *Tower of Marchiolo*, standing on a point of land, which has a *rocky reef* running out to the southward.

E. by N. (*E. $\frac{1}{4}$ S.*) from *Point Ristola*, distant $1\frac{1}{2}$ mile, is *Cape St. Maria di Leuca*, in latitude $39^{\circ} 48' 40''$ N., and longitude $18^{\circ} 23' 0''$ E. Between these points the land forms a kind of Bay, where vessels may anchor almost opposite to *Saligemma Tower*, in from 10 to 25 fathoms; but this place is open to all winds from the southward. N. E. by N. (*N. E. $\frac{1}{4}$ E.*), $1\frac{1}{2}$ mile from the Point of *Cape St. Maria*

di Leuca, is *Monte Lunga Point*, where there is a *telegraph*, and between them stand a *convent* and *tower*. From this *telegraph* a N. by E. $\frac{1}{4}$ E. (*N. E. by N.*) course, about 18 miles, will carry you to *Cape Otranto*: the land all the way is high and rocky; numerous *watch-towers* guard the coast, and there are some spots of good anchorage, but no place of shelter from the sea. Three miles to the northward of *Monte Lunga Point* are the little *River* and *Village of Gagliano*; and 5 miles beyond these is *Porto della Trecase*, where small vessels sometimes ride in fair weather; also at *Castro*, about 5 miles further, both to the northward and southward of *Point Maccarone*. There is also an *inlet* $2\frac{1}{2}$ miles to the south-westward of *Cape Otranto*, where vessels may anchor either opposite the *Port of Badisco*, or within it: the entrance is narrow, but the *Port* has from 5 to 10 fathoms water within it.

2. THE ADRIATIC SEA, or GULF OF VENICE.

Variation, One Point and a Quarter West.

CAPE OTRANTO is the S. western limit of the *Adriatic Sea*, or *Gulf of Venice*, and the easternmost *Point of Italy*. N. N. W. (*N. $\frac{1}{4}$ W.*), 2 miles from the *Cape*, is *Orto Tower*, and between them a *shoal* of 4 fathoms, with deep water all round; between it and the shore, a space of a quarter of a mile, are 24 fathoms.

OTRANTO. N. W. by W. (*N. W. $\frac{1}{4}$ N.*), a good mile from *Orto Tower*, is the *Port of Otranto*, where you have shelter from S. and S. W. winds; but a north-east wind blows right in. The *City of Otranto* is small, and badly built, but strongly fortified, having a *castle* erected upon a rock, which entirely commands the *port*. There is some commerce at this place, their chief exports being olive-oil, together with cotton, tobacco, wines, and fruit in small quantities. On the *Castle* is a *semaphore*, in latitude $40^{\circ} 7' 46''$ N., and longitude $18^{\circ} 30' 23''$ E.; and to the northward of the town, on the starboard side as you enter, is a *battery*. The north-eastern point of the *Port* is called *Point St. Nicola*, off which runs a *rocky shoal*; there also is a *shoal*, *La Secche*, within the *port*, with a passage on each side of it: this *port* is calculated to admit vessels of 150 tons; the anchorage is behind *Point St. Nicola*, but the bottom is rocky, unless you are very near the land; here are 4, 3, and 2 fathoms. On the western side of the *port* the ground is better, but the water is shallow. This *port* will not admit vessels drawing more than 10 feet water: they ought to be moored abreast of the town at N. W., where, however, they will be exposed to the easterly winds, which commonly produce a heavy sea, and in winter become often dangerous.

From *Otranto* a *rocky coast* runs N. N. W. (*N. $\frac{1}{4}$ W.*), full 3 miles. A *sandy shore* then commences, running more easterly to the *Tower of Fiumicello*, and then northerly again; it there becomes *rocky*, and continues so for the space of 7 miles. This part has many inflexions and *craggy points*, with numerous detached rocks; but they lie all near the land, and have no passage within them. There are four or five *towers* on these *points*, and small vessels sometimes ride off this part, sheltered by the land-winds only. About midway stands the *Torre dell' Orso*, in latitude $40^{\circ} 13' 35''$ N., and longitude $18^{\circ} 25' 37''$ E. N. W. $\frac{1}{4}$ N. (*N. N. W.*), distant $3\frac{1}{2}$ miles, is the *Torre Ruggiero*, from whence a similar course for 5 miles will carry you abreast of *Cataldo Castle*, situated on a *sandy point*, to the south of which a vessel may anchor in 3 or 4 fathoms. N. W. $\frac{1}{4}$ N. (*N. N. W.*), $5\frac{1}{2}$ miles from *Cataldo*, is the *Tower of Chianca*, having a *rocky reef* running from it; to the W. N. W. $\frac{1}{4}$ N. (*N. W.*) of which, distant one league, is *Rinalda Tower*, and further on, about the same distance, *Specchiola Tower*. From *Specchiola Point* a *reef* runs out to the eastward half a mile, having 9 and 10 fathoms at its edge; almost a league beyond it are the *Point* and *Tower of St. Genaro*; and 2 miles beyond *St. Genaro* is the *River Cerane*: here the sandy shore terminates. Small vessels frequently anchor off the *Point of St. Genaro* in 4, 5, or 6 fathoms, with fair weather.

From the *Tower of Genaro* to *Cape Cavallo* the course is N. N. W. $\frac{1}{4}$ N. (*N. $\frac{1}{4}$ W.*), above 6 miles: the coast half-way, as far as *Materelle Tower*, is *rocky*, and from thence to the *Cape* it is low and *sandy*, with two or three lagoons behind it, but woody all the way. Off *Materelle* a *rocky bank* extends full three-quarters of a mile, with only 1 and 2 fathoms upon it; and round the *Cape* are several rocks, both above and under water. Vessels may anchor under the *Cape*, to the southward, in 5, 6, and 7 fathoms, clean *sandy ground*; but to the northward of the *Cape* they must allow a good berth, coming no nearer than 10 or 12 fathoms.

BRINDISI. To the westward (*W. N. W. $\frac{1}{2}$ W.*), distant $3\frac{1}{2}$ miles from *Cape Cavallo*, is the *Port of Brindisi*. This was once a secure and spacious harbour; but some vessels having been sunk at the entrance, sand and weeds have so accumulated round them, that it is nearly choked up, although attempts have lately been made to cleanse it. Vessels of the greatest burthen may enter the road by two channels, but the reference should be given to that which lies between *Castello di Mare* and the *Petagne Rocks*; and in both passages care must be taken not to approach the land, in order that you may avoid the shallows which lie all round there. The anchorage is abreast of the beacons placed on the west coast; where, although vessels may be exposed to the east winds, yet they will ride without danger. At the end of the Bay is the channel which leads into the *Port*; but this cannot be entered by vessels drawing above 8 feet water. The population of this town is estimated at 8000. There are two churches and two convents; and the town is defended by a castle built upon an insular rock, and by two batteries. In its environs are whole forests of olive-trees; but the commerce is at present insignificant. The *Castle* is in latitude $40^{\circ} 39' 27''$ N., and longitude $18^{\circ} 1' 20''$ E. Before this *Port* lie the *Islands of Petagne*, which are almost joined to the *Reef of Cavallo*, and are five in number: a mile within these is the *Island Fortino*, at the north end of which is a *Lazaretto*. To sail into *Brindisi*, you must steer for the *Castle* standing upon the *Island Fortino*; sail not too near it, for the southern side is foul, and has several rocks about it under water, which you must be careful to avoid: keep rather along the southern shore, until you are within the haven, or pass between *Fortino Island* and the western shore. The channel is clear, and preferable to the one to the southward of the island. There is anchorage within the *Petagne Islands* in 4, 5, and 6 fathoms, where you may lie sheltered from the easterly winds. You may anchor between *Fortino* and the town in 5, 6, and 7 fathoms. It is high water at 6 h. 18 m. on full and change days.

To the N. W. (*N. N. W. $\frac{1}{2}$ W.*) of *Fortino*, distant about 2 miles, is *Torre de Penna*, from which runs a small reef to the northward; but to the westward is a cove, where vessels sometimes ride in 4 or 5 fathoms. W. $\frac{1}{2}$ N. (*W. N. W. $\frac{1}{2}$ W.*) from *Cape Gallo*, distant $3\frac{1}{2}$ miles, is *Torre della Teste*, standing also on a rocky point, with a reef round it, having a similar anchorage to the westward. Two miles further is *Lapane*: the coast between *Testa* and *Lapane* shallows out a considerable distance from the shore; and at a similar distance beyond *Lapane* are the *Point* and *Tower of Guaceto*. Between these is the *Scoglio degli Apeni*, a rock above water, having a channel of 5 fathoms between it and the shore. Further on is another rock, *Il Forcello*, with two lesser ones close to the *Tower* and *Point of Guaceto*: to the southward of these a vessel may also anchor for a short time, in favourable weather. The east now winds a little more northerly to the *Towers of Nuovo* and *St. Sabina*, a little south-eastward of which are some rocky islands: between them and the *Tower* a small vessel may occasionally anchor. The land continues from *Sabina* in a W. N. W. (*N. W. $\frac{1}{2}$ W.*) direction for $8\frac{1}{2}$ miles, to the *Tower of St. Leonardo*, having several islets, emptying themselves into the sea, with some watch-towers and stopping places, but no part is sheltered from the sea. Two miles and a half before you reach *St. Leonardo*, you will see the *Port* and *Castle of Villanova*, into which small craft sometimes run. Inland, and about 3 miles from the sea, are the *Town* and *Fortress of Ostuni*, standing on an eminence; and further south, the *Town of Carivigno*.

Off *St. Leonardo* are several shoals; therefore, unless in a very small vessel, this point should have a good berth. The coast, generally speaking, continues from hence in a N. W. $\frac{1}{2}$ W. (*N. W. $\frac{1}{2}$ N.*) direction, about 13 miles, to *Monopoli*, having the *Towers of Canne*, from which a reef runs out, *Savallitro*, *Cinto*, and *St. Stefano* between: at these places there are coves, with anchorage for small craft; and at *Cinto* is a rock above water, lying close in-shore. Large vessels will find no anchorage all the way from *Brindisi* to *Monopoli*, nor any danger in sailing along, keeping only at a proper distance from the land.

MONOPOLI is a well-built town, containing a *Cathedral*, six *Churches*, and some *Convents*. The population is reckoned from 10 to 15,000; and its exports are stuffs, wine, and olives. It is seated upon an eminence, and defended by a *Castle*: here is a *Telegraph*, in latitude $40^{\circ} 57' 19''$ N., and in longitude $17^{\circ} 20' 30''$ E.

From *Monopoli* a N. W. $\frac{1}{2}$ W. (*N. W. $\frac{1}{2}$ N.*) course for $5\frac{1}{2}$ miles will take you to *Polignano*; and from thence to the *Point* and *Tower of Ripagnolo* the distance is above one league further. About half a mile before you reach *Polignano* is the

Scoglio St. Antonio, a rock above water, and near the shore. Beyond *Polignano*, and before you reach *St. Vito*, is the *Cala St. Catarina*; and in the space between *Monopoli* and *Ripagnolo* are several towers and coves, but of little use to shipping. The coast all the way is rocky.

W. N. W. $\frac{1}{2}$ N. (*N. W. $\frac{1}{2}$ W.*), 4 miles beyond *Ripagnolo*, is the *Town of Mola*; half-way between these, the rocky coast ends, and a sandy beach begins: this continues beyond *Mola* full 4 miles, to the *Tower of Pelosa*. *Mola* is small, and situated on a low point, on either side of which is an open roadstead, where vessels may anchor in 8 or 10 fathoms, sandy ground. Midway between *Ripagnolo* and *Mola* a bank runs out with $3\frac{1}{2}$ fathoms, beginning at *Madonna di Cozzo*, and ending at *Mola*. A little beyond *Mola* is a *Castle*.

BARI. W. N. W. (*N. W. $\frac{1}{2}$ W.*) $10\frac{1}{2}$ miles from *Mola*, is the *City of Bari*, large and populous, standing on a plain low shore; it has two fine Churches belonging to it, and a large *Castle* with two towers: by these objects the City may be well known: the *Castle* stands further in than the Churches; so that in sailing along, you shut the *Castle* in with the Churches. This is a considerable town, and said to contain more than 30,000 inhabitants. The environs are rich in grain, wine, oil, cotton, soap, fruits, and saffron, all of which form articles for exportation: a vast quantity of linen also is manufactured here, but this is chiefly for inland consumption. To sail into this road, bring the *Castle* midway between the Churches, and steer right in to the best part of the road: large ships ride in 16 and 18 fathoms water, good ground; but further in towards shore you have 12 fathoms, rocky and foul ground. You may anchor so far to the eastward, as to bring the *Castle* to bear in one with the great Church; but come not into less than 16 or 18 fathoms water. Before the City is a haven for small vessels: to the eastward is a ledge of rocks, and opposite to it a mole, between which is the entrance: there are also some rocks at the mouth of the haven, with not above 9 or 10 feet water upon them. When you are fairly in, you may lie moored to the mole, and with an anchor to seaward.

W. N. W. $\frac{1}{2}$ W. (*W. N. W. $\frac{1}{2}$ N.*) from *Bari*, distant one full mile, is *Point St. Cataldo*, the coast between making a deep hollow, with a sandy beach. Vessels may ride here near the Point, in 4, 5, and 6 fathoms, but not sheltered from the northward. After you have passed *Point St. Cataldo*, a sandy low shore runs on for the distance of 2 leagues: in this space stands the *Torre dell Spirito*, with a cove or port near it for small craft. Eight miles from *Point St. Cataldo* is *Giovenazzo*.

From *Giovenazzo* to *Molfetta* the distance is one league; from *Molfetta* to *Bisceglie* 5 miles; and from *Bisceglie* to *Trani* $4\frac{1}{2}$ miles more; the shores all running in nearly a similar direction. Before each of these places is temporary anchorage, but no shelter, the coast being all low and sandy. *Trani* is a handsome little town, and formerly had a good harbour, but this has been neglected, and is now blocked up with sand and sea-weeds. Near *Trani* is a *Castle*. Sailing past *Trani*, you will see a sandy point at about a league's distance; this is called *Point del Papa*, 4 miles from which is the *Town of Barletta*.

BARLETTA. This was formerly a large and populous City, but is now in a neglected and ruinous state, its walls falling, and its ditches filled with rubbish. The streets, however, are still wide and well-paved; the houses large and lofty: the Citadel is spacious, and commands the port; but the port is obstructed by several irregular piers, where shipping are commonly moored. The inhabitants trade to a considerable extent in salt, almonds, liquorice, corn, &c., and a yearly market is kept up; but the air of this place during the hot months is considered to be very unwholesome.

Barletta has a mole for small vessels, with a kind of breakwater before it, on which is a lighthouse, low, and not well attended to. The anchorage in the road is good, with off-shore winds, at from 1 to 3 miles N. N. W. $\frac{1}{2}$ W. (*N. by W.*) from the lighthouse, where you will find from 7 to 13 fathoms, soft muddy ground. You may also ride with the lighthouse S. S. W. $\frac{1}{2}$ W. (*S. W. $\frac{1}{2}$ S.*), distant $2\frac{1}{2}$ miles, in 10, 11, or 12 fathoms.

GULF OF MANFREDONIA. From *Barletta* the shore takes an extensive sweep W. N. W. $\frac{1}{2}$ N. (*N. W. $\frac{1}{2}$ W.*), $18\frac{1}{2}$ miles, to the *Tower of Rivoli*, being all low and sandy; it then turns northward to the *Town of Manfredonia*, which bears from *Rivoli Tower* N. $\frac{1}{2}$ W. (*N. $\frac{1}{2}$ E.*), nearly 9 miles: in this space are several towers, towns, and rivers, but no port or place of safe anchorage. Four miles from *Barletta* is the *River Ofanto*, beyond which, about 4 miles, are some salt-works; from hence the large Lake of *Salpi* runs lengthways, parallel to the shore, full 10 miles, ending about $2\frac{1}{2}$ miles before you reach the *Tower of Rivoli*. Beyond *Rivoli* is the *River Carapella*; and

5 miles further is another, which communicates with a salt-lagoon inland, called *Pan-tano Salso*; about a league from this is the *Town of Manfredonia*, which gives its name to the whole of this concavity, being commonly called the *Gulf of Manfredonia*.

The *Town of Manfredonia* was founded in 1256, and is stated to contain about 6000 inhabitants, whose principal merchandise is salt and corn. Vegetables are plentiful, and fish abundant. Large quantities of salt are procured from the salt-lakes before noticed, which are manufactured for exportation. To the southward of the town the shores are uniformly low and sandy, but to the northward it becomes high. Vessels may lie before the *Town of Manfredonia* in 3, 4, 5, 6, or 8 fathoms, deepening their water in proportion as they recede from the shore.

N. E. by E. (*E. N. E. $\frac{1}{2}$ E.*) from *Manfredonia*, distant $5\frac{1}{2}$ miles, is the *Torre Piacenza*, 3 miles from which, on high land, stands the *Tower and Semaphore of Saracino*: this mountainous ridge runs north-easterly, and joins *Mount Angelo*, being remarkable, and generally the first western land you will perceive on entering the *Gulf of Venice*. A little beyond the *Torre Piacenza* is a sandy beach, 2 miles long, where a vessel may stop, if necessary, in 3 or 4 fathoms: towards the northern part of the beach is a little rocky bank, which you can easily avoid, as it connects two small rocks above water, and lies near the shore.

From the *Torre Piacenza* to *Point Greco* the course is N. E. $\frac{1}{2}$ E. (*E. N. E. $\frac{1}{2}$ N.*), and the distance 10 miles; all the coast, except the beach before mentioned, being high land. The shore now turns more northerly, one mile, to *Port di Campi*, which has a tower on each side, and three small islands off its entrance: behind these islands are 3, 4, and 5 fathoms, and outside of them 6, 7, and 8 fathoms. A little to the northward of the northern island is a rock under water, called the *Testi di Gargano*, having rounded which, you will see *Port Felice* to the westward, within which are two rocky islets, and near the inner one the *Tower of Felice*; there are 6, 5, 4, and 3 fathoms within these islands, and vessels may ride secure with all but north-easterly winds. Proceeding northward, you will reach *Portonovo*, a place much encumbered with rocks, both above and under water; it is about $1\frac{1}{2}$ mile from *Port Felice*. Two miles and three-quarters beyond *Portonovo* is *Cape Viesti*, having a *Town* and *Fort* upon it, also a watch-tower on its northern point; a rocky island is situated very near it, having a passage for boats, with one fathom water between it and the *Point Croce*, from which this island takes its name: there is good anchorage under this *Cape* with west and north-west winds. *Cape Viesti* is in latitude $41^{\circ} 52' 35''$ N., and longitude $16^{\circ} 11' 30''$ E., and is the extreme point of the *Promontory of Monte Gargano*. The town has a population of 5000, who carry on a confined traffic.

N. W. by W. (*N. W. $\frac{1}{2}$ N.*) from the *Island St. Croce*, distant 2 miles, is the *Tower of Molinella*, the land between indenting inward, and making several open coves, but without any danger. Three-quarters of a mile beyond *Molinella* is *Porticello Tower*, the land forming a semicircle between, with 4 and 5 fathoms. N. W. by W. (*N. W. $\frac{1}{2}$ N.*) from *Porticello*, $1\frac{1}{2}$ mile, is the *Island Cianca*, joined by a reef to the main; in this direction lie two towers, *Spinale* and *Saracino*: between these latter is the *Rock Paradiso*, having a passage within it of 3 fathoms water. The shore all the way from *Porticello* to *Spinale* is low and sandy, but considerably elevated inland. A little to the westward of *Spinale* is a lake, and inland is the *Fidizola Telegraph*.

The shore now turns W. $\frac{1}{2}$ N. (*W. N. W. $\frac{1}{2}$ W.*) to *Peschichi*, off which are the *Monacelli Rocks* above water. A vessel may anchor to the westward of these, between them and the *Tower of Poccio*, in 4 and 5 fathoms. About W. $\frac{1}{2}$ S. (*W. $\frac{1}{2}$ N.*) from *Peschichi*, distant 6 miles, is the *Town of Rodi*, a small town situated on the front of a high rock, which projects over the sea, and is surrounded with other rocks under water. To the westward are three other rocks, which are visible, with a bank round them; these are all very near the shore; therefore, by giving that a berth, they can easily be avoided. *Rodi* has no port, but carries on a little traffic in oil and soap. From *Rodi* a sandy plain commences, running west above three leagues. About $4\frac{1}{2}$ miles from *Rodi* is an opening which runs into the great *Lake of Varano*, upon the eastern banks of which are the *Towers of Varano*, and further on is the *Macchia Rotunda*. The coast now juts out a little to the northward towards *Point Capojale*: here stands the *Tower of Cala Roscia*, off which lies a ledge of rocks, both above and under water. One mile to the westward of *Capojale* are the *Tower* and *Point of Mileto*, having also a rocky islet at its point, but no passage within it.

TREMITI ISLANDS. These islands are four in number, the southern end of the southernmost bearing N. W. $\frac{1}{2}$ N. (*N. N. W.*) from *Mileto Point*, distant 13 miles, and from *Point Termoli* E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ N.*) 22 miles: this is the largest.

island, being about $1\frac{1}{2}$ mile long, and three-quarters of a mile broad; it is called *Domino*. *St. Nichola*, or *Santa Maria*, is the middlemost, being narrow, and about one mile long. On this island is a signal-staff, in latitude $42^{\circ} 7' 30''$ N., and longitude $15^{\circ} 31' 4''$ E. The northern one is of a crooked form, about a mile in length, narrow, and named *Caprara*. The other, named *Gallitio*, is small, and lies between the N. E. end of *Domino* and the S. W. end of *St. Nichola*; there also is a rock at the northern end of the small island. There appear to be clear passages between these islands, and good anchorages all round; but off the N. E. Point of *Caprara* are some rocks under water, which it is necessary to avoid.

E. N. E. ($E. \frac{1}{2} N.$) from the N. E. Point of *Caprara*, distant 12 miles, lies a small rocky island, called *Pianosa*, the channel between having from 50 to 60 fathoms. The signal-staff on this island is in latitude $42^{\circ} 13' 40''$ N., and longitude $15^{\circ} 45' 23''$ E.

PELAGOSA. This is an island, in latitude $43^{\circ} 23' 44''$ N., and longitude $16^{\circ} 16' 3''$ E. It is narrow, and about three-quarters of a mile long, lying nearly in the middle of the Gulf. At its S. eastern point is a little islet, with rocks under water about it: and E. S. E. $\frac{1}{2}$ E. ($E. S. E. \frac{1}{2} S.$) from it, distant 4 miles, is the *Cajola Rock*, beyond which is another, about the size of a ship, even with the water's edge, from which a shoal runs off to the E. N. E. $\frac{1}{2}$ N. ($N. E. \frac{1}{2} E.$) a full mile. Between *Pelagosa* and the *Rock Cajola* are 9, 52, 30, and 27 fathoms; close to *Pelagosa* are 6 and 9 fathoms, which deepens suddenly every way to 35, 50, 52, and 69 fathoms. The *Island Pelagosa* bears from *Viesti* N. $\frac{1}{2}$ E. ($N. N. E. \frac{1}{2} N.$), distant 32 miles; and from *Pianosa* E. N. E. $\frac{1}{2}$ N. ($E. N. E. \frac{1}{2} E.$), 26 miles.

From *Mileto Tower* on the main, the shore runs W. $\frac{1}{2}$ N. ($W. N. W. \frac{1}{2} W.$) for one mile, when it turns a little southerly, and a low sandy beach continues all the way to *Termoli*, a distance of 28 miles. One league from *Mileto* there is a knoll of $1\frac{1}{2}$ fathom, lying close in-shore, abreast of which the *Lake of Lesina* begins, and runs along, in the direction of the coast, for 11 miles. Near the western end of this lake is a small place on the main, called *Fortore*, where you will see far off a great storehouse, resembling a tower: hither merchandise is sent from the inland towns of *Italy*, and shipped to various parts; you ride before and near to this storehouse, in 6, 7, and 8 fathoms, good sandy ground. *Fortore* bears W. $\frac{1}{2}$ S. ($W. \frac{1}{2} N.$) from *Mileto Tower*, distant 13 miles, and has a *Semaphore*.

From *Fortore* a long line of level coast continues, first in a West ($W. N. W. \frac{1}{2} W.$) direction for 8 miles, to the *Tower of Saccione*, and then inclines W. N. W. ($N. W. \frac{1}{2} W.$), 6 miles, to the *Tower of Campo Marino*. The *Town of Campo Marino* stands to the southward of the tower; a little beyond the tower to the westward is the *River Bisferra*: between this and *Termoli* the shore winds in, forming two or three bays, where vessels may ride, but will be exposed to the easterly winds: there are some shoals hereabout which require great care; one of these, detached from the main, has only 8 feet over it.

TERMOLI is built upon a projecting point of land, round which are several rocks. It is fortified, and a tolerably sized town: the *Telegraph* is in latitude $42^{\circ} 0' 25''$ N., and longitude $15^{\circ} 0' 26''$ E. There is open anchorage to the northward of *Termoli*, but no good shelter.

From *Termoli* the general run of the land is W. N. W. ($N. W. \frac{1}{2} W.$), all low and sandy, but mountainous inland. Off the shore are some detached rocks, but all are near the main. Having proceeded in the above direction for 13 miles, the coast becomes rocky and high, turning North ($N. by E. \frac{1}{2} E.$): here you will see the *Town of Il Vasto*, which is both large and populous, having a *Semaphore*. Nearly 4 miles beyond *Vasto* is the *Point Penna*. All this part presents rocky and irregular points, abounding with small rocks; so that vessels intending to anchor here, should keep towards the offing, coming no nearer than 5 fathoms water.

Off *Point Penna* are two rocks, called *Scoglio della Compana*. On the *Point* are a *Palace* and a *Semaphore*, the latter being in latitude $42^{\circ} 10' 20''$ N., and longitude $14^{\circ} 44' 0''$ E.; and close to the *Point* are from 3 to 7 fathoms: to the northward is a small cove, but open to seaward.

Having rounded *Point Penna*, a N. W. $\frac{1}{2}$ W. ($N. W. \frac{1}{2} N.$) course will carry the mariner to *Ortona*, distant 16 miles. Within this space are the towns of *Fossaceca* and *St. Vito*, besides the rivulets of *Osente*, *Sangro*, and *Moro*, with several towers, but no place of maritime consequence.

ORTONA A MARE. This is a fortified town, seated at the bottom of a bay, having a cathedral, several churches, and convents: in its environs are numerous villas: and great quantities of wine are made and exported here. Here also is a *Semaphore*, situated

in latitude $42^{\circ} 20' 30''$ N., and longitude $14^{\circ} 26' 30''$ E., and may be known by the high mountain of *Magella*, standing at the back of the town, which will, in fair weather, be seen so far as the *Gulf of Manfredonia*. Here you may anchor about half a league from the shore, having 10, 12, or 15 fathoms, or nearer if requisite, in less water: the ground is good and soft; but this is a bad station in a *Levanter*. At the north-eastern point of the town, which projects into the sea, are some rocks under water: there is also the *Mestrucci Rock*, which is directly facing the town. Another rock lies to the N. eastward, called *Scoglio la Rotonda*: beside these there are two further out. There are channels between all these rocks for boats; but ships should give them a good berth, for though they are visible, there is shallow water about them.

We now proceed along a line of shallow, sandy, and low coast, reaching so far as *Ancona*, abounding with many rivers, towers, and towns, though none of much consideration to the mariner; the whole lying, generally speaking, in a N. N. W. (*N. by W. Northerly*) direction.

The towns most worthy of notice are *Francavilla*, $6\frac{1}{2}$ miles distant from *Ortona*: there is a small rocky bank in front of this place, and a *Semaphore* near the Town: $4\frac{1}{2}$ miles further are the Town and *River Pescara*: 8 miles beyond that is the *Castle of Silvi*, built on an eminence, and having a signal-staff in latitude $42^{\circ} 33' 14''$ N., longitude $14^{\circ} 6' 48''$ E.: a good mile further is the *Tower of Cerano*, with some rocky banks before it, and the Town of *Mutignano*, 2 miles behind it, inland. The *River Vomano* is 5 miles from *Cerano Tower*; 6 miles beyond that is the *River Trontino*, with *Monte Pagano* and *Cologno* between them: having passed the *Trontino*, you will see *Giulianova* and *Montone* to the N. westward. The *Tower of Salinello* stands on the southern bank of the river of that name, and is distant from *Trontino* $2\frac{1}{2}$ miles; $3\frac{1}{2}$ miles beyond *Salinello* are the *Tower* and *River Vibrata*, having the Town of *Tortoreto* between: $3\frac{1}{2}$ miles beyond *Vibrata* is the *River Tronto*, which separates the kingdom of Naples from the Roman States, having the Town of *Colonella* situated upon a height inland, and near to the southern banks of the *Tronto*. All this coast is shallow, and soundings extend from it a great way, gradually increasing in depth as you get more distant: thus close to it are 3 feet; half a mile off, 2 and 3 fathoms; one mile off, 4 and 5 fathoms; 3 miles off, 7 and 10 fathoms; and 6 miles off, 19 and 20 fathoms. Vessels, therefore, sailing along, may regulate their distance by their depth of water. *Tronto Tower* is in latitude $42^{\circ} 53' 54''$ N., and longitude $13^{\circ} 55' 40''$ E.

THE ROMAN STATES. Five miles beyond the *River Tronto* are *Saint Benedetto River* and Town, and one league further *Le Grotta Mare*, having a sort of *Mole* before it; $2\frac{1}{2}$ miles from hence is the Town of *Marano*, near which is the *River Manocchia*. Four miles and a quarter from *Manocchia* is the *River Asone*, on the southern bank of which is the Town of *Pedaso*; its entrance is encumbered with many rocks. Four miles from the *River Asone* is the *River del Lete*; about a mile beyond which is *Port Fermo*, the Town of *Fermo* lying $3\frac{1}{2}$ miles inland: this port has a population of 8,000, and exports both corn and wool. Three and a quarter miles from *Port Fermo* we arrive at the *River Tenna*; from which to the Village of *Elpidio* is $1\frac{1}{2}$ mile: 5 miles beyond *Elpidio* is the Port of *Cittanova*, the town standing $2\frac{1}{2}$ miles inland. Seven miles and a half from the Port of *Cittanova* is the *Potenza Fiumara*, and $3\frac{1}{2}$ miles beyond that is the *Musone Fiumara*; between these, and nearer to *Potenza Fiumara*, is *Port Recanati*, and midway inland the Town of *Loretto*. Four miles and a half from *Musone Fiumara*, are *Camaldoli Point* and *Fortress*, having the Village of *Sirolo* about 2 miles to the southward. The land now turns N. W. (*N. N. W. & W.*) towards *Ancona*, distant 7 miles. Here, having rounded the Point of *Camaldoli*, the shore bends inward, and forms the Port of *Poggio*, or *Porto Nuovo*, within which are a *Mole* and two batteries: the coast from hence to *Ancona* is rocky, and the interior, formed by *Mount Conero*, high.

When vessels are unable to make *Ancona*, the Port of *Nuovo* affords a good shelter against all winds blowing from N. E. to N., and so far as S. E. turning by W. It has a sandy bottom, mixed with gravel, and in some places, particularly towards the *Tower Point*, it is interspersed with rocks, against which the cables, if not buoyed up, would be liable to be cut. The *Tower* standing upon the *Mount*, the *Madona Church*, and the *Tower of Porto Nuovo*, serve as land-marks for making the port. In running along shore from *Ortona* to *Ancona*, you will pass the several *Semaphores* of *St. Benedetto*, *Pedaso*, *St. Biagio*, *Elpidio*, *Mount Polazzo*, *Recanati*, and *Porto Nuovo*.

ANCONA. This is a free port, and situated between two hills, on one of which stands the Citadel, and on the other the Cathedral Church: the harbour is convenient, and admirably situated for commerce. The Town is well-fortified, and has a popu-

lation of full 20,000. The *Arsenal* is one of the best in the Papal territory: its chief exports are grain, wool, silk, sail-cloth, soap, alum, sulphur, fruit, and ship-biscuits; while its imports are equally diversified and extensive. From England and Holland it receives tin, lead, herrings, camblets, sugar, coffee, cocoa, spices, and cloth; from Russia, leather and tallow; from Sweden, tar; from Turkey, cotton; and from Germany, iron. The inhabitants are active, industrious, and intelligent people; and, without distinction of rank, are universally engaged in trade.

Vessels approaching *Ancona* will see *Mount Conero*, or the *Mount of Ancona*, and the *Church of St. Syriac* standing on an eminence within the town, and having a *Semaphore*, by which it will be recognised. On entering, and on leaving the *Port*, in consequence of the current and the rocks, it will be proper to stand off at a good distance from the *Point of the Mole*; but when the wind is unfavourable, the entrance will be somewhat difficult, there being so little room for tacking. The *Port* will accommodate seven ships of war, frigates, and others of smaller size, besides a great number of merchantmen. The *Channel of the Lazaretto* can also admit many vessels not exceeding 200 tons burthen.

The *Port* is formed by a *Mole*, which runs out from the northern part of the City, near 2000 feet; this is 68 feet high and 100 feet broad, and is a noble structure: on its extremity are a battery and lighthouse, and near it is a triumphal arch of white marble; there is also a *Lazaretto*, the Quarantine laws being very strict. This *Lazaretto* is on the southern part of the port, to the southward of which is the *Citadel*: this side is all shallow water, and the ground rocky. Vessels going into this *Port*, should give the northern part of *Point Ancona* a wide berth, on account of the *St. Clemente* and *Volpe Rocks*, which lie to the northward of the *Point*, and rounding the *Mole-head*, there will be no difficulty in steering in; but, with a ship drawing 15 or 16 feet water, you should anchor immediately you have passed the lighthouse, otherwise you may find yourself aground, there being not more than 4 fathoms water in any part of the harbour. Three or four frigates may lie well sheltered from all winds, inside the lighthouse, moored head and stern; but no where can large vessels swing at their anchors.

There also is good riding in *Ancona Roads*, with the winds off-shore, at from one to two miles to the N. westward of the lighthouse, in 5, 6, and 7 fathoms water, muddy and good holding ground. Water may be had at the *Lazaretto*, and from a pipe in the centre of the town. Wood, provisions, vegetables, and fruit are plentiful, cheap, and good. The *Lighthouse of Ancona* is in latitude $43^{\circ} 37' 42''$ N., and longitude $13^{\circ} 30' 26''$ E.

On sailing up the *Gulf of Venice*, the mariner will observe the track marked upon the Chart, being the usual track vessels are accustomed to make, by which they will get sight of the islands on the eastern side, as *Cazza*, *Liassa*, *St. Andrea*, *Pomo*, &c. These will be described hereafter.

Ancona to the River Po. W. N. W. ($N. W. \frac{1}{2} W.$) from *Ancona*, distant 13 miles, is *Sinigalia*, having a small mole and lighthouse, under which you may ride occasionally. In the interim you will pass the *Towns of Falconara*, *Montignano*, and the *River Esino*, with several lesser streams and villages; the shore all the way being shallow to approach, but clean, and without any hidden danger. *Sinigalia* is said to have a population of 10,000: here a fair is kept annually. The pier will admit small craft; and this place is much frequented by the inhabitants of the Greek islands, who exchange their wax, honey, and tar, for silk, wheat, and hemp; but there is a scarcity of good fresh water. *Sinigalia Lighthouse* is in latitude $43^{\circ} 43' 2''$ N., and longitude $13^{\circ} 13' 11''$ E. There are *Semaphores* at *Falconara*, *Casa Bruciate*, *Torre Albani*, and *Sinigalia*.

From *Sinigalia* the shore continues in the same direction for 6 leagues, and you will pass the *Towns of Fano* and *Pesaro*, both which are now distinguished by small *Lighthouses* and *Semaphores*. *Fano* is surrounded by a lofty wall, with towers and bastions towards the sea, and is adorned with several churches: the *Lighthouse* is in latitude $43^{\circ} 51' 0''$ N. *Pesaro Lighthouse* is in $43^{\circ} 55' 42''$ N., and longitude $12^{\circ} 54' 39''$ E. This place is much noted for the excellence of its figs and olives. The land then turns more westerly towards *Rimino*, which is above 16 leagues from *Ancona*: this was formerly called *Ariminum*, and is a small but elegant town, standing at the mouth of the *River Marecchia*, over which is a bridge built of marble: formerly small vessels might sail up to it, and large vessels rode under the *Castle* in 6, 7, and 8 fathoms; but the sea has retreated above a mile to the eastward, so that what was formerly a good harbour, is now become shallow, and blocked up with sand. A

canal has therefore been made, by which it communicates with the *Adriatic*; but even this is neglected, and rendered impassable, except for boats. Its chief trade now consists in supplying the interior towns with fish: the town is very populous, and under the government of the French, had 16,000 inhabitants. There is a small *lighthouse* standing at the entrance of *River Marecchia*, in latitude $44^{\circ} 4' 35''$ N., and longitude $12^{\circ} 34' 10''$ E. Between *Pesaro* and *Rimini* are three *Semaphores*.

Following the coast, you will pass by the *Semaphores* of *Zella*, *Pedreria*, and *Uso*, also the *Town* and *Villages* of *Casenatico* and *Cervia*. *Casenatico* is a small place, inhabited by fishermen, for whom there is a good harbour, and well-constructed canal, at the entrance of which is a *Semaphore*. *Cervia* has also a *Semaphore*, and is a modern town, with broad handsome streets, having salt-works in its vicinity, and between it and *Ravenna* an extensive forest of pine-trees. The shore hereabout is shoal and sandy; but in the offing you may anchor in 6, 7, and 8 fathoms. The *Town* of *Cervia* is distant from *Rimini* five leagues; $3\frac{1}{2}$ miles from which are the *Tower* and *Semaphore* of *Savio*, standing at the mouth of a little river, from whence the coast bends in circularly to the *Fiume Nuovo*, at the entrance to which is the *Ronco Semaphore*: 3 miles to the northward of this is the *Ravenna Semaphore*, standing at the opening of the *River Montone*, which leads to *Ravenna*. Here a *mast* is erected, which occasionally exhibits a light. The *Steeple* of *Comacchio* is visible at a considerable distance; but there is no anchorage under *Volano*, and the ground between it and *Goro* is shallow and chalky. To the eastward is the *Port* of *Goro*, within which the ground is soft and muddy. To sail into this place, you should steer to the eastern side, in 4, 5, and 6 fathoms water: this is the westernmost branch of the *River Po*, which hereabout runs into the sea by numerous channels.

From *Punta Porto* the low coast winds round E. N. E. (*N. E. by E. nearly*), for 13 miles, at which distance is the *Puntadella Maestra*, or outer point of the main stream of the *Po*, which is the present boundary between the Roman and Austrian States. There are many rivers between, which are all rendered shallow by *sandbanks* at their entrances; but you may haul up, and occasionally anchor over against any of them, in from 6 to 12 fathoms, muddy ground.

RAVENNA was formerly a town of considerable magnitude, and had a good port; but it is now at a distance of between 3 and 4 miles from the sea. Its situation among the marshes cannot be considered healthy, although the inconvenience has been in part remedied, by carrying the *Rivers Montone* and *Ronco* along the side of the town, and thereby draining off the stagnant water. The town is encircled with a mound of earth, but is not a place of much strength. Its streets are straight and broad, but wear a gloomy and deserted appearance. Fresh water is scarce. There are many remains of antiquity about its environs; but the inhabitants do not now amount to above 12,000. Its principal manufacture is silk. The *Town Tower* is in latitude $44^{\circ} 25' 25''$ N., and in longitude $12^{\circ} 12' 11''$ E.

From the entrance to *Ravenna* the coast runs North (*N. by E. $\frac{1}{2}$ E.*) $3\frac{1}{2}$ miles, to *Port Corsini*, whence a river runs up to *Ravenna*; two leagues further on is *Port Primaro*, being the first or southernmost branch of the *River Po*. There are a *Semaphore* and *Battery* at *Port Corsini*, another at *Sacca della Mile*, and a third at *Port Primaro*. Five miles N. N. W. (*N. $\frac{1}{4}$ W.*) from *Port Primaro* is the entrance to *Port Magnavacca*, which runs up to *Comacchio*; this also is situated in a marshy valley, and has about 6000 inhabitants, who are chiefly employed in the salt-works adjacent. Eight miles further is *Volano*; and nearly half-way between these is the *Bianco Semaphore*.

VOLANO. The *Tower* of *Volano* stands upon the coast, at the entrance of the *River Volano*, which also is one of the branches of the *River Po*, and runs past the *Town* of *Ferrara*. *Volano Tower* bears N. by W. $\frac{1}{2}$ W. (*N. $\frac{1}{4}$ W.*) from the *Lighthouse* of *Rimini*, distant 45 miles; and from *Ancona* N. W. $\frac{1}{2}$ N. (*N. N. W. $\frac{1}{4}$ W.*) 90 miles.

THE COAST OF LOMBARDY. From the *Porto della Maestra* the shores continue low and marshy up to the head of the *Gulf*, near *Duino*, the land being broken throughout by various rivers, inlets, lagoons, &c. Thus *Ports Taffana*, *Levante*, *Pozzadini*, and *Caleri* are but minor branches, or rivulets, running into the *River Po*, and not navigable, except by boats. N. W. $\frac{1}{2}$ N. (*N. N. W. $\frac{1}{4}$ W.*) from *Porto della Maestra*, distant 10 miles, are the entrances to the *Adige*, *Porto Vecchia*, and *Port Fossone*; a little beyond which is *Port Brondolo*, having an old fortification near its entrance, and a little battery to the northward. *Brondolo* is in a very decaying state, and now a town of little consequence; but about 4 miles to the northward is the entrance of the *Port* of *Chioggia*. This is a handsome and populous town, situated on an island of the same name, containing three churches, several monasteries, and having

a *Citadel* and other outworks, so as to constitute it one of the safeguards of *Venice*: like that city, it is built upon piles, and computed to hold 20,000 people. Its *cathedral* is situated in latitude $45^{\circ} 13' 26''$ N., and longitude $12^{\circ} 17' 55''$ E. Here are extensive salt-works. The entrance is very narrow, and guarded by two fortresses, one of which is in ruins: there is also a *Semaphore*; but though the channel is not wide, there is a good depth of water within it, and the ground is mostly soft mud. The *Island Pelestrina* runs along from *Fort Caraman*, in ruins, to the *Fort of Pietro*, rather more than 2 leagues, between which and *Fort Alberoni* is the entrance of *Malamoco*, one of the channels which lead to *Venice*: here also is another *Semaphore*. Another channel is formed at the northern end of the *Malamoco Island*, about 6 miles N. N. E. $\frac{1}{2}$ E. (N. E. $\frac{1}{4}$ N.) from *Fort Alberoni*.

VENICE. This celebrated City is built upon a collection of small islands, separated from the main land by shallows 3, 4, 5, and 6 feet deep, and this position, in the midst of waters, gives it a singular appearance; for when seen from a distance, its domes, spires, and public buildings seem floating in the waves; and by night, when the town is lighted up, the view is peculiarly striking. The length of the City is above two miles, its breadth one mile and a half, and its circumference 6 miles. It is divided into two parts by a canal, which winds through it in a circular form. This canal is 100 feet in width, and has a bridge of one arch across it, called the *Rialto*. Every part of the town is intersected by canals, serving for streets, and their burks or gondolas for carriages. The footways are narrow, dark, and inconvenient, with the exception of the *Merceria*, a street in the centre of the town, containing shops of all kinds of merchandise. The *Square of St. Mark* is a miniature of the *Palais Royale of Paris*, bordered with arcades containing handsome shops and coffee-rooms, which, when lighted at night, have a splendid and imposing appearance. Personal accommodation, and even health, are here sacrificed, that space may be found for statues and works of Art. Rains in Venice are frequent; when, there being no springs or wells, the inhabitants are supplied with fresh water from the tops of the houses, which is collected in cisterns, and filtrated through sand; but this wants that freshness which is peculiar to running water.

The commerce of *Venice*, if not very extensive in any one branch, is of considerable diversity, consisting of woollens, serges, canvas, and ropes; gold and silver stuffs; silk stockings, looking-glasses, hardware, steel, and lace. Here also are many petty manufactories of mock pearls, diamonds, ornamental glass-work, jewellery, and wax-work. Printing is also carried on in an extensive way, and books are articles of export to *Greece*, *Constantinople*, *Spain*, and *Portugal*: the prices are low, and the types good, but the paper of an inferior quality. Refreshments of all kinds may be obtained on moderate terms; and shell-fish are in abundance.

When abreast of *Ancona*, a N. N. W. $\frac{1}{4}$ W. (N. by W.) course will take you to *Venice*: in this track you will have from 10 to 30 fathoms water; but if you are near the opposite coast of *Dalmatia*, your water will deepen to 40 and 50 fathoms. When you are in the fair-way for *Venice*, and distant from it about 30 miles, your depth will be 16 and 15 fathoms: here, in fair weather, you can see the high land over *Venice City*: sail boldly on, and anchor in 10, 8, 7, or 6 fathoms. The best road and ground are south-eastward of *Malamoco River*; but be sure not to run in to the southward of *Venice*, for if you do, it will be difficult to regain the harbour, because of the current, which generally runs to the southward.

To go into the road further than *Malamoco*, you must have a pilot: indeed, it is customary to get pilots from the *Port of Rovigno* on the *Istrian shore*, which lies E. S. E. (S. E. $\frac{1}{4}$ E.) from *Venice*, distant about 57 miles; or from *Parento*, which is 84 miles north of *Rovigno*. Should you sail to *Venice* without a pilot, you will be made to pay for one, and also incur a forfeiture for omitting to take him in. In the summer the pilots are to be obtained from *Rovigno*, but in winter they remove to *Parento*. Steer from *Rovigno* W. N. W. (N. W. $\frac{1}{4}$ W.), and when off at sea about two leagues, you will find from 22 to 25 fathoms; coming within 5 leagues of the shore, you will meet with the bank of *Cortelazzo*, having 10, 11, and 12 fathoms upon it: when you have crossed that, you will begin to perceive the *Church-steeple of Venice*, bearing about W. $\frac{1}{4}$ N. (W. N. W.); being over the above banks, you will gradually lessen your depth until you reach the entrance; and when you have the *Tower of St. Mark's Church* in a line with *Malamoco*, you will be opposite to the channel, and in 3 or 4 fathoms water. Or bring *St. Mark's Steeple* N. W. $\frac{1}{4}$ W. (N. W. by N.), and *Point Lido* N. N. W. $\frac{1}{4}$ W. (N. by W.), about $3\frac{1}{2}$ miles from the land, and you will have 8 or 9 fathoms, good holding ground.

Vessels bound for *Venice*, and coming from the southward, should endeavour to

make the land about *Point Maestro*, which has a *spit* running out from it. The *Point* is very low, and the soundings, as you approach it, regular; but it will be prudent not to run into less water than 11 or 10 fathoms, for in that depth you will be 2 miles from it: here you will soon get sight of *Chioggia Church Steeple*, which has a round top or dome, with a flagstaff and vane upon it. The *Church of St. Mark*, in *Venice*, has a square-pointed steeple, with an image upon it, in latitude $45^{\circ} 25' 53''$ N., and longitude $12^{\circ} 20' 31''$ E. When these two steeples bear W. $\frac{1}{2}$ S. (*W. by N.*), they will be a good guide for vessels desirous of steering in for *Chioggia* or *Malamoco* passages. The Pilots of *Venice* recommend anchoring with *St. George's Steeple* (a bright red one) open a hand's breadth to the right of *St. Mark's Steeple*: here you will have 9 and 8 fathoms water, being about 4 miles off the shore. In the *Port of Chioggia* at the time of high water, all vessels drawing less than 17 feet may enter, but they must have a pilot; and it is impossible to enter with the wind at north, west, or south. *Fort St. Felix* and the *Jetties* will shelter a vessel from the effects of the *Bora*, and also from the S. E. wind: the canals in the interior communicate with the canals of the other ports, the *River Po*, and several inland rivers.

Spring-tides near *Venice* commonly rise 3 and 4 feet; and it is high water, full and change, about 9 o'clock. It has been noticed that the tide at the head of the *Adriatic* is more perceptible than in any part of the *Mediterranean Sea*; and with the wind from the south, it sometimes rises 5 and 6 feet. On entering or leaving these ports, the most proper time for which is at half-past 10 a. m., vessels must have the assistance of a pilot; for the channels are so long, narrow, and circuitous, that it is impossible, with winds from the north, east, or west, to navigate them; in which case, vessels will run for the anchorages of *Pelorosso*, or *Sacca di Piave*, where they will ride under the shelter of the *Coast of Istria*.

From the entrance of *Porto del Lido* the shore continues low, and is intersected with many *riuolets* and *lakes*, which are commonly called *Porte*: thus *Port Piave*, which is one of the openings leading to a river of that name, lies $6\frac{1}{2}$ miles E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ N.*) from *Porto del Lido*; and off-shore, in the space between them, you will have good anchorage in 6, 7, and 8 fathoms water, the bottom being fine sand: this is called in the Venetian Charts *Sacca di Piave*. Seven miles beyond *Piave Vecchio* is *Cortellazzo*, another opening, leading to the same river; and 2 miles further is *Croce*; a league beyond which is *Port Margaret*, having near it the small *Village of Caorle*. *Port Margaret* forms a tolerable harbour for small vessels; and in the lakes behind it most excellent fish are caught, and sent to *Venice* by the inland canals. Similar to these are *Ports Falconera*, *Baseleghe*, and *Porto Punta*, the entrance to the *River Tagliamento*. The shore here turns a little more northerly to *Port Lignano*, which leads to the great *Lagoon of Marano*: here, on a little rising ground, stand the *Town* and *Fortress of Marano*, said to contain 1000 people; several rivers run into this *Lagoon*; and on its north-eastern extremity stands the *Town of Aquileia*, formerly one of the largest towns in *Italy*, but now reduced to a population of 4 or 500. Three and a half miles from *Port Lignano* is *Port Busa*, the entrance to the *Rivers Corno* and *Ausa*. Nearly 5 miles from *Busa* is the small *Port of Grado*; the town may be known by its steeple. The low and swampy coast which began at *Gozza*, and has continued all round, passes *Grado*, and ends near *Monfalcone*: a sandbank of shallow water lines the whole shore, and the soundings gradually decrease on approaching the land. Numerous *Semaphores* and small *batteries* are placed all along the coast.

Monfalcone is situated at the northernmost part of the *Gulf of Trieste*, about $1\frac{1}{2}$ mile inland; it is a market-borough, and has a population of 1200: near it is the *Village of Panzano*, which gives name to this part of the *Gulf*, it being called *Sacca di Panzano*.

ISTRIA. The coast of *Istria* is generally bold, and, inland, mountainous; its inhabitants are employed in various branches of agriculture; corn is cultivated in small quantities, but the quality is good, and their barley much esteemed; their oil is accounted superior to that of Sicily or Spain. Their fisheries for tunnies and anchovies is very profitable; but their salt, though good, is inadequate to their supplies of fish. Their wines, particularly *Muscadine*, and the wine of *Ribolla*, are in great repute; and their stone and marble, porcelain and alum are important articles of exportation; but their immense forests constitute the chief riches of the country.

From about *Monfalcone* the coast runs to the S. E. (*S. S. E. $\frac{1}{2}$ E.*) towards *Trieste*; between are the *Towns of Duino*, *Nabersina*, and the *Villages of Prosecco*, *Cortovello*, *Sador*, and *Barcola*.

TRIESTE. This is now the most important and free port of *Austria*. It lies in latitude $45^{\circ} 38' 37''$ N., and longitude $13^{\circ} 46' 27''$ E., and bears from *Venice* E. by N. (*nearly East*), distant 61 miles. *Trieste* is a handsome town, and divided into two districts, the old and the new. The old *Town* is built upon elevated ground, with a *castle* at its summit; the new *Town* is intersected with a *canal*, and its streets are arranged with great neatness and regularity. It is the sea-port for all that long tract of Austrian territory extending from the *Tyrol* to *Transylvania*; for though *Venice* is allowed the privileges of a sea-port, yet, from its distance, it does not interfere with the trade of *Trieste*; while *Fiume* is a smaller place, and not so advantageously situated.

Among the exports of *Trieste* is the produce of the mines of *Idria* and *Hungary*; linen, tobacco, and woollens from different parts of the Austrian dominions; and printed cottons from Switzerland: while their imports are cotton, wool, hides, raisins, silks, rice, and oil from the Levant; wheat from *Odessa*; and sugar and coffee, with other Tropical products, from *Brazil* and the West Indies. The commerce of the Adriatic is principally carried on in barks of 20, 30, and 40 tons each: these and much larger vessels can enter the *canal*, on each side of which are quays for the convenience of loading and unloading. The quantities of goods conveyed by land to and from *Trieste* are very considerable; and although the conveyance is tedious, it is far from being expensive, and the harbour-dues are but trifling.

Ship-building is here carried on with much activity, and oak-timber is abundant: there are manufactories for refining sugar, making white lead, soap, leather, paper, and wax. Coal can be obtained in the vicinity, and there are extensive salt-works at some distance from the town: the cattle are small, and the land about the town stony; but the fisheries along the coast are most productive.

Trieste has a *mole harbour* lying before it, which is capable of containing a great number of ships; but it is exposed to the N. W. and North, though sheltered on the west by a long *mole*, on which a strong *battery* is erected: the *citadel* commands the town and road. In steering for *Trieste*, you should endeavour to make the coast somewhere about *Rovigno*, the high steeple of which, in latitude $45^{\circ} 4' 56''$ N., and longitude $13^{\circ} 31' 57''$ E., will be seen at a great distance. Here you will obtain a pilot. Steer along the shore until you get abreast of *Point Salvore*, which may be considered the south point of the *Gulf of Trieste*, near which stands the *Mosca Light-house*: and after you have passed *Salvore Point*, steer N. E. $\frac{1}{4}$ E. (*E. N. E.*) for *Trieste*. The *Port* and *Road of Trieste* present good anchorages for any vessels: the lights abreast of the town, and those in the vicinity of the *Mole of Santa Theresa*, serve for mooring merchant vessels. The W. and S. W. winds blow right into the *Bay*, and cause a great swell of the sea, which will render it proper for you to back your anchors. Those vessels which are overtaken by the *Bora*, and not able to keep under sail, commonly run for shelter into some of the ports on the coast of *Istria*. There is anchorage all over the bay in from 10 to 4 fathoms, soft oozy ground; but the best anchorage for large vessels will be with the *Citadel* in one with the *Opera-house*, in from 9 to 7 fathoms, good holding ground. Moor with an open hawser to the northward and eastward: this caution is particularly necessary on account of the *Boras*, or northerly winds, which occasionally sweep down from the mountains; "when," says Mr. Turner, "the howling of the winds, the crashing of the ships, and the cries of sailors of all nations, form a combination truly dreadful." The Quarantine Regulations for this place are tedious and strict: the *Lazaretto* and *Arsenal* are to the northward of the *Town*, and every vessel, on entering the port, is met by a boat, by whom they are forbidden to enter the *City*, and conducted to the *Lazaretto*. If the state of the crew should be reported unhealthy, you must immediately sail for *Venice*, where the *Lazaretto*, standing upon an island, is less liable to communication; and this interdiction continues from 36 to 40 days. Passengers are treated with less severity; but the shortest term ever assigned to them is 28 days with a foul bill of health, and 20 days with a clean one.

Fresh water may be obtained at various places, but the best is at the *Lazaretto*: wood is plentiful and cheap; beef, vegetables, and all kinds of refreshments are good and cheap.

It is said this Port, as well as *Messina*, is much infested by the *terredo navalis* (ship-worm), which is very injurious to shipping.

S. S. W. $\frac{1}{4}$ W. (*S. W. $\frac{1}{4}$ W.*) from the *Mole of St. Theresa*, distant $4\frac{1}{2}$ miles, is *Point Grossa*: between them the land bends eastward, and forms the *Bay of Maja*. The town stands upon the southern shore, and has a kind of harbour for barges.

From *Point Grossa* another bay is formed, having the *Town of Capo d'Istria* seated on a rock, and surrounded by the sea, being connected to the main by a stone bridge. This town is 2 miles in circumference, and has a cathedral and several churches. It is supplied with spring-water by aqueducts running under the salt-works. To the westward is the little *Town of Isola*, standing on a point of land which runs out to seaward; and much celebrated for the Ribolla wine.

W. by S. (*W. $\frac{1}{2}$ N.*) from *Isola*, distant 4 miles, is the *Town of Pirano*.

PIRANO is a small town, but rich and populous; it is erected partly on an eminence, and partly on a point which runs into the sea. This town, with *Muja* and *Capo d'Istria*, monopolize all the salt-trade hereabout: their inhabitants are mostly seamen. The best anchorage in this road is under the *Mount Mogorone*, between the *Town* and the *Bay of Porto delle Rose*; for in that place they will be less exposed to the violence of the *Bora*, although they are not sufficiently sheltered in it, to allow them to neglect those precautions which are necessary when anchoring in a bad road. But in the vicinity, and to the westward of *Pirano*, in the inner part of the *Mole*, there is at all times a shelter for small vessels; and this *Port of Istria* is the most commodious for communication with *Venice*. In the *Porto delle Rose* there is anchorage to the southward of the town. The *Port* forms a spacious bay, sheltered by mountains on every side, except the west, and this side is open to the sea: when the sun sets brilliantly with a clear sky, in winter, you may expect a *Bora*, or north-wind, on the morrow. The town stands on the north-western point of the bay, and the hills near the town are covered with olive-trees. The mountains to the eastward and southward are uncultivated, and covered with heaths and low shrubs: and at the eastern part of the bay are salt-pits. There is a pier for boats, and a narrow canal cut from the sea into the town, over which is a bridge with iron railing. You may obtain a small supply of provisions at this place; and here you will see the hills of *Friuli*, which is the northern boundary of the *Adriatic*: they are very high, and, in winter, covered with snow. *Point Salvore* is low land, and has a shelf extending from it to the south-westward, upon which there is danger by going too near the land. Upon this bank Mr. Turner's vessel struck, being carried, during a dead calm, upon it by a strong current. S. W. by S. (*S. W. $\frac{1}{2}$ W.*), distant one mile from *Point Salvore*, is *Mosca Lighthouse*, built of stone; the lantern is of an octangular form, and the lights are supplied with gas: they are produced by forty-one apertures on the argand principle, and arranged in three horizontal circles of $4\frac{1}{2}$, $3\frac{1}{2}$, and 3 feet in diameter. These three circles are a foot and three-quarters from each other, and the whole mass of light is nearly 6 feet in height, the centre of the light being 117 feet high, and will be visible for nearly 7 leagues.

Outer Bank. At the distance of 4 miles West, (*W. N. W. $\frac{1}{2}$ W.*) from *Point Salvore* is the northern end of a bank, which thence extends south (*S. by W. $\frac{1}{2}$ W.*), about 2 leagues. On the middle of this bank are 6 fathoms, but towards each end but 4 fathoms; consequently, with large vessels, it will always be safer to go to the westward of this bank, and not attempt a passage inside, as such may be dangerous: you will readily avoid it by keeping at the distance of 7 miles off *Point Salvore*.

Three miles to the southward of *Mosca Lighthouse* is the little *Port of Omago*; the town is situated on a small projecting point, whence soap is exported: the air of the surrounding district is unwholesome, and the forests very wide. Five miles to the southward of *Omago* is *Daila*, a little port or cove; and 3 miles further is *Citta Novo*, or *Port Quieto*, it being formed by the entrance to the *River Quieto*.

CITTA NOVO. The town stands on a point on the northern side of the port, and is very ancient, now in a state of decay, its situation being considered unwholesome, and consequently its inmates are but few, and those chiefly are fishermen: there are a cathedral and three other churches remaining. The entrance to the harbour is about a mile wide, and runs in E. by N. (*E. $\frac{1}{2}$ S.*), full $1\frac{1}{2}$ mile, so that large vessels may sail in here, if requisite: there are 14 fathoms at its entrance, from whence it gradually lessens in depth to 2 fathoms, which is near its inner part.

PORTO QUIETO. This is esteemed an excellent anchorage. To enter it, you should steer towards *Denté Point*, which will be perfectly safe, until you are about 2 or 3 cables' length from it, when vessels must run direct for the port, and anchor to the N. W. of *Berrazza Point*, which place is secure from every danger. It has the advantage of being open at that part which is opposed to the direction of the *Bora*; so that if a vessel parted her cables from the effects of so formidable a wind, she could, even then, get out to sea under any sail.

PARENZO AND ROVIGNO. Four miles and a half from *Citta Novo* is *Parenzo*, a well-built town, with a fine cathedral, constructed on a rock, and having a tolerable harbour, which will admit large ships. Near the town is anchorage in from 10 to 7 fathoms, sheltered from the sea-winds by the *Islet St. Nicolo*, and two other little *islets* to the northward, between which is the northern entrance. Six miles further southward is the *Canal de Lemo*, and 2 miles beyond that is *Rovigno*. All the way from *Parenzo* to *Rovigno* the shore is encumbered with rocky *islets* and rocks, so that you ought never to approach within 2 miles of the land: they have passages between them, but no stranger should venture within them, for in doing so, many vessels have been already wrecked. *Rovigno* is a populous and handsome town, built upon a rock, and projecting into the sea, which makes it form two harbours. The one at the town itself is not deemed secure, and is the resort of boats and barges, while large vessels discharge at *Figarola*, about a mile off. The town is only a mile in circumference, but contains at least 10,000 inhabitants, who are an industrious set, and chiefly employed in the pilchard fisheries, ship-building, and the sale of timber. The environs produce olive-oil and wine, and contain valuable quarries of marble. On advancing towards this place, you will discover its neat church, with a very high spire steeple, upon which is a winged image of St. Euphemia, used as a weathercock; and beyond this are high woody mountains. The entrance is sheltered by several islands, which lie before both the harbours. On one of these is placed a long pole, or mast, which being left to the westward when sailing inward, you will go in the best passage: the southern harbour is the best and most sheltered, as here you will lie in from 7 to 10 fathoms. This port may be known from seaward by the high mountain of *Caldero*, seeming like two hills, and bearing E. N. E. (E. $\frac{1}{2}$ N.) from the anchorage. To the southward of *Rovigno* is *Point Monte Auro*, off which lie the *Islands St. Andrea* and *John*.

THE BRIONI ISLANDS. S. E. by S. (S. S. E. $\frac{1}{2}$ S.) from the above islands, distant 8 miles, are the *Brioni Islands*, lying one mile, and one mile and a half from the shore. These are composed of two large islands, the *Great* and *Little Scoglio*; and a number of lesser *islets* about them: between most of these there are narrow passages, which small vessels and coasters frequently run through. The *Greater Scoglio* lies to the southward, and is an irregularly formed island, almost of a triangular shape, and about $2\frac{1}{2}$ miles in length: on its north-eastern side is the *Town of Brioni*, before which is anchorage in 4, 5, 6, or 8 fathoms. The *Little Scoglio* is also crooked in formation, and nearly parted in two by a deep valley in the centre. These islands are remarkable for quarries of most beautiful marble. There is no passage between these two islands, except for boats; but to the eastward, and between the *Brioni Islands* and the main, is a good channel, with 8, 9, 10, 13, 16, and 18 fathoms.

FASANA. On the main, and 11 miles to the southward from *Rovigno*, is *Fasana*, a market-town, situated in a kind of bay, where quantities of fish are caught. Before, and a little to the northward of this town, there is good anchorage in 10, 9, and 8 fathoms, over a bottom of mud; but midway, between *Fasana* and *Brioni*, the ground is all foul, and the anchorage not to be recommended. Vessels may sail through the *Fasana Channel* with good water, until they get near the *Islands Girolamo* and *Koseda*: at the southern part of the passage, a little to the northward of these islands, there is a bank of 3 and 4 fathoms, called the *Rangon*. They may pass between either of these islands, but the widest and best channel is between *St. Girolamo* and the *Greater Scoglio*, where they will find 16, 13, and 18 fathoms.

POLA. Having passed to the southward of *Girolamo* and *Koseda*, they will open the *Port of Pola*. This is an excellent harbour, and capable of containing a fleet of ships; but the entrance is narrow for large vessels, although there is a depth of water sufficient for a man-of-war, and vessels of any burden may be moored on shore close to the town, or towards the *Rocks of Olive*: this is the best port in *Istria*. To sail in, you will pass between the *Islands of St. Andrea* and *St. Pietra*, and anchor before the town, or to the northward of *Olive Island*, having all the way from the entrance, 17, 16, 15, 14, and 13 fathoms water, good muddy bottom: at the anchorage before the town are from 9 to 6 fathoms; and to the northward of *Olive Island*, 11, 10, and 8 fathoms. *Olive Island* is in latitude $44^{\circ} 52' 18''$ N., and longitude $13^{\circ} 15' 10''$ E. The *Town of Pola* is of ancient construction, and was formerly a considerable city, but now dwindled down to a mere country town, with 800 inhabitants. About its environs are many remains of antiquity; among which are a castle, and the vestiges of a temple, a theatre, an amphitheatre, and several churches. There is a battery on *Point Compare*, defending the entrance of the har-

hour, and also others on the different points and islands as you pass along. Water may be had to the northward of the castle, near the landing place, also from a well behind *St. Caterina Island*; and you may be supplied with wood and a small stock of provisions at this place.

From *Pola* the land continues S. E. $\frac{1}{2}$ S. (S. S. E. $\frac{1}{2}$ E.) for 8 miles, or to the southern point of the *Promontory of Istria*. Here stands a lighthouse, illuminated with gas upon a new and improved principle, and similar to that near *Cape Salvore*, already described: this lighthouse is in latitude $44^{\circ}46'0''$ N., and longitude $13^{\circ}55'10''$ E., shewing a light of great strength, and visible far off: it is therefore exceedingly useful to this part of the coast, as it enables the mariner to avoid the rocks and shoals that stretch off the *Punta di Promontore*, full 2 miles; and also to guard against the currents which frequently come from the eastward with great force, and are continually varying in their direction. About a mile to the S. W. $\frac{1}{4}$ W. (W. S. W. $\frac{1}{4}$ S.) from *Cape Promontore*, is the *Porer Rock*, above water; and close to the point of the *Cape* is another: do not attempt going between these, because of the rocks which lie there, and are under water; but always give the *Porer Rock* a good birth to the westward, if passing towards *Trieste*, and keep at a still greater distance if rounding the *Cape* for the *Quarnero*.

The *Quarnero* is the name of the channel or gulf which bounds the eastern side of the *Peninsula of Istria*. Vessels going to the N. westward should avoid steering in to the eastward of the *Cape*, because, exclusive of the currents, which might horse you upon some of the dangers about the *Cape*, you will be greatly annoyed, especially in the winter, by those furious *Boras*, or gales of wind from the hills, which we have already noticed.

MEDOLINO. Having weathered the south Point of *Istria*, you will open the *Port of Castello*, within which, on the larboard side, is the small *Port of Rosso*, having several islands and some sunken rocks lying right before the entrance. The *Port of Medolino* lies at the north end of the *Port*; but the dangers within render it improper to venture without a pilot.

The *Town of Medolino* stands at the starboard side of the *Port*, and on the opposite side is the *Village of Promontore*; at the north-western end of the *Port* you will see the *Town of Pomer*. From the *Port of Medolino* the land runs East (E. S. E. $\frac{1}{2}$ E.) about 3 miles to *Point Merlera*; the land then turns N. by E. $\frac{1}{2}$ E. (N. N. E. $\frac{1}{2}$ E.) towards *Point Ubas*, a distance of 8 miles; to the westward of which point a long narrow inlet runs in to the northward, having deep water 5 miles up, so far as *Castel Nuovo*, opposite which are 20 fathoms water. From *Point Ubas* to *Point Nera* the distance is $3\frac{1}{2}$ miles: this is a black and broad Point, visible at a very considerable distance, the intermediate space from *Cape Merlera* containing several small coves or ports. From this Point the strait becomes narrowed by the *Island of Kerso*; its least width is $2\frac{1}{2}$ miles, and there is deep water all the way to *Fiume*. The course from abreast of *Cape Nera* to *Volooska*, at the head of the Gulf, is N. by E. $\frac{1}{2}$ E. (N. N. E. $\frac{1}{2}$ E.), and the distance 25 miles. In your passage you will pass several towns and small ports, fitted for small craft to run into. The principal of these are *Albona*, *Fianona*, *Volooska*, and *Kastua*; these are not places of much maritime importance, but they have all got castles of defence. *Albona* is situated about a mile from the sea, and is well-peopled; the country is open, and there are two churches. *Fianona* is walled round, and has a kind of port or harbour; it is nearly 4 miles beyond *Albona*. *Volooska* is situated at the further end of the Gulf, and bears from *Kastua* S. S. W. $\frac{1}{2}$ W. (S. W. $\frac{1}{2}$ S.), distant one league; and from *Fiume* W. by N. (W. N. W. $\frac{1}{2}$ N.), distant 5 miles. *Kastua* is situated on a mountain $2\frac{1}{2}$ miles inland, and forms a conspicuous object at this part of the Gulf. The land on your larboard side is all lofty, and the shores on both sides steep-to. Having sailed on the above course until you reach the northern end of *Kerso Island*, and being abreast of *Point Jablanaz*, steer N. E. by N. (N. E.) for the *Town of Fiume*.

FIUME, or St. VEIT, is the chief port hereabout, and contains 6000 inhabitants: it is fortified, defended by a castle, and carries on a considerable traffic in corn, tobacco, wood, figs, grapes, and other fruits; also in the exportation of the salted provisions of Hungary. Its imports are sugar, rye, spices, and salt. It has a mole, and is surrounded by high mountains; but the harbour is not accounted commodious or convenient, on account of the winds which recoil from the mountains upon you, and because of the *Islands Cherso*, *Perosina*, *Veglia*, and others which lie before it: it very frequently happens, when at sea, and the wind is fair for your going in, the *Sirocco*, or south-west wind, will prevent a vessel getting out again. In winter, when the

Bora sets in, blowing hard, vessels at anchor should have moorings lashed against that part of the *Mole* where the river passes : this is a fit place for vessels of a small draught of water. To the north-westward are some sugar-works, and the *Village of Lenzi* ; and to the south-eastward are the *Ports of Martinskiza, Zurcovo, Bucari, and Bucarissa* ; at the entrance to which is *Porto Re*, which presents commodious anchorage for ships of any size ; but the N. W. winds create a swell of the sea, and in winter the *Bora* makes it dangerous. The whole coast from *Fiume* is encumbered with numerous islands, having channels of deep water, and good harbours within them. To give these a regular description will be almost endless as well as useless ; for vessels should never enter this intricate navigation without a pilot : we shall therefore generally notice the harbours most commonly frequented.

Proceeding south-easterly from *Fiume*, there is an inner passage, or Channel of *Mattempo* and *Morlacca* ; it is formed on the one side by the main, and on the other by the Islands *Veglia, Arbe, Pago, &c.*

VEGLIA is an island lying in a S. S. E. $\frac{1}{2}$ E. and N. N. W. $\frac{1}{2}$ W. direction ; it is of an irregular shape, 20 miles long, but in some parts narrow : a town, from whence it receives its name, stands on its southern side ; this is erected upon a hill, surrounded by a wall, and defended by a castle : there are a cathedral, a palace, a town-house, and several monasteries. The population of the whole island is estimated at about 16 or 17,000. The surface of the island is mountainous and rocky : towards the north it is barren, but to the southward the vallies are fertile, and abound with woods. Corn, silk, and olives are produced here, but the grape is much more attended to. Sheep, goats, and horses are numerous ; the breed of the latter is small, but spirited, and capable of enduring much fatigue. *Veglia* has many harbours ; but these are subjected to frequent storms, and unfit for large vessels. *Castel Muskio* is a populous place, and situated near the north-west end of the island, opposite the narrow part of the *Mattempo Channel* : here are a small port or cove, fit for barks and galleys, a rich abbey, and plenty of good fresh water. The other towns are *Malinski*, on the northern coast ; *Dobauizza*, to the west ; *Beskia Nuovo*, to the south ; *Verbeniko*, on the east ; and *Dobrigno* to the N. eastward : these have all ports or harbours ; but, as before observed, they are too frequently agitated by tempestuous weather, to allow them to be frequented by any but small vessels.

ARBE is an island situated about 5 miles to the southward of *Veglia*, being $11\frac{1}{2}$ miles in length, and at its broadest part, about the centre, 4 miles, narrowing towards the south to $1\frac{1}{2}$ mile : at the part nearest *Morlacca* it is mountainous and uninhabited ; but the four great vallies are fertile and pleasant : besides corn and olives, they produce most excellent wine and figs, and afford pasturage for sheep and cattle. There are between 4 and 5000 inhabitants, who export sheep, hogs, hides, wool, fish, wine, and horses. The principal town stands on the south-western side, built upon a hill, and having a cathedral and collegiate church : near to this are some salt-pits, and on the northern part of the island is the *Village of Lopara*. There are several coves about the island, into which vessels can enter, but subject to the same inconveniences as those of the *Island Veglia*.

Between the southern part of *Veglia* and the *Island Arbe* there are several islands ; of these *Parvichio* is the largest, being about 4 miles long, and lying almost close to *Veglia* : the channel between them is very narrow, and has 8 fathoms within it. The Islands *St. Gregorio* and *Golo* are nearer to *Arbe* ; there are passages between them all with deep water ; but to go between *St. Gregorio* and *Arbe* requires a pilot, for there are some dangerous rocks within it : the same may be observed in the channel between *St. Gregorio* and *Golo*. These passages lead into the *Morlacca Channel*. There is also a long narrow island on the S. W. side of *Arbe*, called *Dolin*, with a channel between, but the water is too shallow for any but boats.

THE ISLAND *PAGO* is long and narrow, lying in the direction of the coast S. E. $\frac{1}{2}$ S. and N. W. $\frac{1}{2}$ N. (S. S. E. $\frac{1}{2}$ E. and N. N. W. $\frac{1}{2}$ W.), being in length about 32 miles, and in breadth from 4 to 1 mile : the central part is occupied with an inlet or lake nearly 4 leagues long, within which stands the *Town of Pago*, a place very little frequented by strangers. This island exhibits in itself the extremes of cold and heat ; for in winter it is partly covered with ice and snow, accompanied by the most piercing winds from the *Mountains of Croatia*, so that the heights and sides of the hills are stripped of every kind of herbage ; while in summer the heat becomes so extraordinary, that grapes are ripened by the month of August ; and every other production, in like manner, anticipates the usual time of its maturity. One of the exports of this island is honey, collected from the bees that frequent the odoriferous plants

which, at that period of the year, the island naturally produces. Salt also forms another article of exportation ; but there is no wood to burn, or for any other purpose, except at the northern part of the island near *Punta di Leoni*, where there is plenty of all sorts.

Pago has about 4 or 5000 inhabitants, but these in their manners are uncouth, and hold little communication with strangers. The lake or harbour leading to the town is far from calm, being generally tempestuous and unnavigable. The *Town of Pago* is in latitude $44^{\circ} 27' 0''$ N., and longitude $15^{\circ} 3' 0''$ E. The *Channel of Novigradi*, which runs between the *Island Pago* and the main, is generally about $2\frac{1}{2}$ miles wide : it has deep water throughout, from 47 to 36 fathoms.

On the *main* are several *villages* and *towns*, the principal of which are *Zeng*, or *Segna*, *Jablanaz*, *Karlopago*, *Lukovo*, *Obrovazzo*, *Karin*, and *Novogradi*.

Zeng, or *Segna*, is a free port, and has a small harbour. The town is built at the foot of a steep mountain, and stands at the edge of the sea ; but it is badly built and paved, and though a military position, but indifferently fortified : it stands at the mouth of a very narrow valley, and has a mole or pier, in latitude $44^{\circ} 59' 40''$ N., and longitude $14^{\circ} 53' 40''$ E. It is very much exposed to those violent winds which in these parts are so prevalent : the sea is hardly ever calm, and vessels belonging to, or trading with, the inhabitants, are generally compelled to take refuge against these storms in the harbours of *Arbe* adjacent, before the winter comes on.

Another disadvantage the *Town of Segna* labours under, is the want of good fresh water, this article being very scarcely supplied. The population is about 7000.

Jablanaz lies about 17 miles to the southward of *Segna*, and opposite to the southern end of *Arbe* ; this is a small place, and of no maritime consequence.

Karlopago is a poor town, with about 1000 inhabitants ; it is situated at the foot of a high and craggy mountain, and near the strait which separates the main land from the *Island Pago*, the channel here being about $1\frac{1}{2}$ mile wide ; but it frequently is rendered impassable by the violence of the winds. The natives of this part are a rude uncultivated people, industrious, good-natured, and hospitable, but of a martial disposition, and vindictive when offended. A modern traveller, Mr. Laurent, describes them as "having the habitations and customs similar to the savage tribes, among whom superstition holds the place of religion, bodily strength that of mental vigour, and witchcraft that of science. Their food, of the coarsest kind, consists principally of maize-cakes, and milk curdled with vinegar." There is a double harbour, constructed in 1802, with a mole, in latitude $44^{\circ} 31' 40''$ N., and longitude $15^{\circ} 4' 30''$ E.; their exports are wood, salt, honey, wax, and fish.

Lukovo is situated about 7 miles to the southward of *Karlopago*, and is, like that, a place of very little importance : there is a kind of small harbour, but hardly any commerce attached to it.

Obrovazzo, *Karin*, and *Novogradi* lie at the southern end of the inlet ; *Obrovazzo* is seated $2\frac{1}{2}$ miles inland, and upon the banks of the *River Zermagna* ; *Karin* is at the bottom of the inlet, and near the *River Karisniza*. These are places of little note. *Novigradi* is on the opposite or western side of the inlet, and was formerly a place of considerable consequence ; but its town and castle were demolished in the wars between the Turks and the Venetians ; and it now only sustains a population of 800 inhabitants, whose chief employment is fishing.

KERSO. This is a long and narrow island, lying nearly N. by W. and S. by E. (N. $\frac{1}{2}$ E. and S. $\frac{1}{2}$ W.), being 35 miles long, and of very unequal breadth ; in some parts it is 5 miles wide, and in others not more than one mile. Near it lies the still narrower *Island of Lossini*, running in almost a similar direction, and being connected to *Kerso* by a bridge : here stands the ancient *Town of Osero*, having a handsome church, and a population of 400 poor inhabitants. The surface of these two islands is generally mountainous, but with many large tracks of pasture for cattle. Fish and game are in great abundance. The inhabitants of *Kerso* have covered every spot, even to the tops of the highest mountains, with olives, vines, fig-trees, orange-trees, and corn. Nearly at the centre of the island, in latitude $44^{\circ} 57' 44''$ N., and longitude $14^{\circ} 24' 51''$ E., is the *Cathedral of Kerso* : here, on the western side, is a very old town, the capital of the island ; it stands on the northern part of a small harbour, which is capable of giving shelter to a fleet. There is a population of 4000, but the town is badly built, and the streets narrow and dirty.

THE ISLAND OF LOSSINI, we have already stated, is connected to *Kerso* by a bridge, and these two islands, from that circumstance, are commonly considered as one ; their appearance and productions are nearly the same. Near the northern end of

Lossini is *Mount Ossero*, upon which is a *signal-staff* in latitude $44^{\circ} 40' 22''$ N., and longitude $14^{\circ} 21' 42''$ E. From hence the island runs S. by E. $\frac{1}{4}$ E. ($S. \frac{1}{4} E.$), for 6 miles, to the middle of the island, and then S. E. $\frac{1}{4}$ S. ($S. S. E. \frac{1}{4} E.$) 8 miles, or to its southern end. About 4 miles from its southern point is the *Town of Lossini*, standing on the eastern side of the island; and $1\frac{1}{2}$ mile to the northward is *Little Lossini*, at the bottom of *Port Lossini Piccolo*. These are well-built towns, and contain 2000 inhabitants each, most of whom are fishermen, mariners, and distillers. *Lossini Piccolo* is seated on a hill, having many gardens about it, well stored with orange and other trees. The *Port* is said to be deep and well-sheltered, but narrow. The surface of the island is formed of low stony mountains, divided by hedges of loose stones, 3 and 4 feet high, into fields of vines and olive-trees. The island contains many villages, and wine and oil are its chief productions. The population is estimated at 15 or 1600. Between the *Islands Kerso* and *Lossini* on the west, and *Arbe* and *Pago* on the east, the *strait* is commonly called the *Quarnerola*, and contains the *Islands of Plannik*, situated between *Kerso* and *Veglia*; and the lesser islands, to the southward, of *Tastanik*, *Lagan*, *Dolfin*, and *Palazzoli*: the latter of these has several spots of shoal water about it, as shewn on the Chart; but as vessels which frequent these parts must have a pilot, a minute description is unnecessary.

SANSEGO, UNIE, AND LEVERA. These islands lie off the western side of *Lossini* and *Kerso*. *Sansego* is about 2 miles long, and one mile broad; it is formed of high mountainous land, called *Mount Geibo*, on the summit of which there is a church, in latitude $44^{\circ} 30' 55''$ N., and longitude $14^{\circ} 18' 8''$ E. It bears from *Cape Promontore* nearly S. E. ($S. S. E. \frac{1}{4} E.$), distant 21 miles. About it are several sand-banks, but no danger: the passage on either side is safe, and it forms a good mark for *Port Lossini Piccolo*, the entrance to which lies from the south end of *Sansego* N. E. $\frac{1}{4}$ E. ($E. N. E. \frac{1}{4} N.$), distant $4\frac{1}{2}$ miles. *Port Lossini Piccolo*, called also *Port Valle d'Augusto*, is large enough to admit whole fleets: there is good anchorage in all places in summer, but in winter the best anchorage will be on the N. W. side, with a mooring at N. E., in order to be sheltered from the *Bora*: there is no danger at its entrance, which lies between two points, clearly to be seen. Here are about 400 inhabitants, principally fishermen, this being the chief track for catching anchovies. The island produces also some corn and wine.

UNIE, OR NIA, is a semicircularly shaped island, nearly 5 miles in length, and very narrow. About 2 miles from its southern point there is the *Village of Unie*, forming a little port; and towards the northern end of the island is another, called *Fagon*: there are also three ports or coves on its eastern side, one of which is named *Port Lungo*. This island produces fire-wood, and the fishery about it is esteemed very good and profitable. Off its southern point is *Kanidole* or *Stracane*, a long narrow strip of land, running S. E. ($S. S. E. \frac{1}{4} E.$) 3 miles: it is separated into two or three parts, being low land, and affording pasturage for some sheep and goats, which belong to a few cottagers who reside on the island. There are passages between all these islands; that between *Kanidole* southern rock and *Lossini* is not above half a mile wide; but there are from $5\frac{1}{2}$ to 11 fathoms water in it, and no hidden danger. Between *Kanidole* and *Unie* the passage is wider, and the water deeper, but there is a *sunken rock* within it, which must be guarded against: between *Unie* and *Ossero* there is no danger, and you will have from 25 to 26 fathoms, mid-channel. About one-third of the way from *Unie* towards the main land of *Istria*, is the small *Island of Galiola*, with shallow water near it, but deep water on each side; it divides the passage of the *Quarnero* into two channels, and vessels bound to *Fiume* may pass it either to the eastward or westward. There is also the *Island of Levera* lying off the western side of *Kerso*, distant about 2 miles; it is inhabited by fishermen, who have built some cottages upon it.

Off the southern part of *Lossini* are the *Islands of Asinello* and *St. Pietro di Nembo*; the former of these is about 2 miles long, and one mile broad; the latter lies close to the eastward, and has a church upon its northern end: there are a passage and good anchorage for small craft and brigs between them. In entering from the north-westward, you should keep in mid-channel, and towards the S. E. the land may be approached on all sides. You may anchor also to the northward of the islands, and between them and *Lossini*. Three other islands will be seen to the eastward of the southern part of *Lossini*: the largest of these is named *Oriule*; the next *Ruda*: there is no passage between these two islets, but between them and *Lossini* there are 4 and 5 fathoms water.

To the southward of *Asinello*, distant nearly 2 miles, is the little round *Island of*

Griviza: midway in the channel between *Asinello* and *Griviza* is a bank of 4 fathoms, with 8 and 7 fathoms close to it. To the N. E. $\frac{1}{2}$ E. (*E. N. E. $\frac{1}{2}$ N.*) of *Griviza*, distant 3 miles, is a dangerous shoal with only 6 feet water over it, but 9 and 10 fathoms round it: this lies just in the fair-way of vessels proceeding from the S. westward into the *Quarnerola*. Having therefore passed between *Griviza* and *Premuda Islands*, as near as possible in mid-channel, keep along at one mile's distance from the northern shore of the *Island Selve*, and steer N. N. E. (*N. E. $\frac{1}{2}$ N.*) towards the northern part of *Pago*. The group of small islands, *Premuda*, *Selve*, *Ulbo*, *Magrisina*, *Skardiza*, and *Maon*, with those to the southward of *Premuda*, viz. *Skarda*, *Isto*, and *Melada*, are chiefly inhabited by fishermen and their families, whose occupations are the breeding of cattle, and curing of fish. There are small villages on most of them, but nothing else deserving of particular notice: there are passages between most of them, all leading to the main channel of *Zara*.

Zara Channel is the strait or passage running between the territory of *Dalmatia* on the east, and the *Islands Ugliano*, *Pasman*, &c. on the west. One of the entrances, marked on the Chart as the best channel for navigating among the islands, is between the *Islands Premuda* and *Griviza*: in this passage you will steer on East (*E. S. E. $\frac{1}{2}$ E.*) until you are about 3 miles off *Selve*, and *Griviza Island* bears N. W. by W. (*N. W. $\frac{1}{2}$ N.*); then a S. E. by E. (*S. E. $\frac{1}{2}$ S.*) course will take you between *Selve* and the little *Islands of Pettini*, which having weathered, you will steer a little more easterly, and it will carry you into the *Channel of Zara*. Another passage is through the *Sette Bocche*, and to the southward of *Melada*; but this track is interrupted by several small islets with spots of shoal water, and requires a pilot. There is also a channel between *Puntadura*, and to the southward of *Pago*, towards the *Morlacca Channel*; but this must not be hazarded without a pilot.

ZARA is situated on the shores of *Dalmatia*, in latitude $44^{\circ} 6' 50''$ N., and longitude $15^{\circ} 12' 58''$ E. It is strongly fortified, and stands on a point of land, which forms a spacious harbour, capable of containing a fleet of ships. In the inner harbour there is excellent anchorage for brigs, being sheltered from the westerly winds by a reef of rocks which lies on the larboard side of the entrance; while the roadstead adjacent, at the north-westward, affords anchorage for vessels, which, from their size, or contrary winds, cannot get into the Port. There are several churches, a cathedral, an arsenal, and a garrison. Outside the walls are the remains of an aqueduct, made in the time of Trajan, and several other monuments of antiquity. It formerly was the capital of *Venetian Dalmatia*, and still is a very considerable town, with a population of 8000, who carry on an extensive commerce. It is here a distilled water, called *Rosa Solis*, is manufactured, an article of much repute.

GROSSA. To the westward of the *Islands of Ugliano* and *Pasman* are many others: the outermost of these is *Grossa*, or *Lunga Island*, which is mountainous, long, and narrow, stretching S. E. $\frac{1}{2}$ S. (*S. S. E. $\frac{1}{2}$ E.*) from the latitude of $44^{\circ} 10'$ to $43^{\circ} 52'$ N. Upon this island there are thirteen villages: the principal of these is *Sale*, standing upon the eastern shore, and not far from the northern end of *Port Taljer*. Here is a little port, sheltered by the *Island Labdara*, and others which lie before it.

INCORONATA. This island almost joins *Grossa*, for between, the passage is very narrow, and difficult of navigation. There is only one village on this island: its inhabitants are, like those of *Grossa*, shepherds and fishermen, trading principally in salt-fish. The *Island Grossa* is steep-to and clear of danger, with deep water on its western side throughout; but *Incoronata* is encumbered with numerous little islands and shoals, having passages between them, which none but the natives can possibly navigate. Within these islands, and between them and *Pasman* and *Ugliano*, are also the *Islands of Eso*, *Zut*, and numerous others, which it will be useless to attempt the description of.

ZURI. This island lies to the southward of *Incoronata*, and forms the southernmost of this group. Its length is 7 miles, and its breadth about one. On it are a church and village; and on *Mount Bol* is a signal-post, in latitude $43^{\circ} 39'$ N. To the westward of the island are several rocky islets and shoals, stretching out 3 miles: the outermost of these is called *Lucietto*, and appears above water, with 14 and 33 fathoms close to it.

SEBENICO AND SCARDONA. *Sebenico* stands on the slope of a rocky hill, which descends to the very edge of the water, and is surrounded by fortifications of an ancient date. It is situated on the banks of the *Kerka*, which here widens into a lake, and forms an excellent harbour. The town, though old, is well built,

and fortified with a *castle*; it is also defended by *two forts* on the top of the hill: the cathedral is handsome, built in the Gothic style, and remarkable for the construction of its marble roof. It is in latitude $43^{\circ} 44' 15''$ N., and longitude $15^{\circ} 53' 28''$ E. The environs of *Sebenico* are extremely fertile, and wines and oil are abundant. *Scardona* stands further up the *River Kerka*: it formerly was one of the most populous towns in *Dalmatia*, and is still surrounded by a wall and *two fortresses*; but these are in a state of decay. The population of *Sebenico* is about 7 or 8000, that of *Scardona* 1500. Between *Zuri Island* and *Sebenico* are the *Islands of Kakan, Capri, Zlarin*, and others; between all which there are channels, but for which you should obtain a pilot. The anchoring grounds in the *Channel of Sebenico*, and particularly that which lies to the southward of *Fort St. Nicholas*, should only be resorted to when the wind will not permit vessels to make the *Port*. In all other circumstances vessels may enter the *Road of Voddizze*, in which they will be better sheltered than in any other, provided all those precautions have been adopted that are necessary for guarding against the sudden gusts of the *Bora*, which are very frequent, and blow as furiously there as in all the places in the vicinity. It is difficult to make the *Port of Sebenico*, which is capacious enough to admit a large fleet, particularly for first-rate vessels, on account of the narrowness of the *strait* through which they must pass, and the current, which runs there in a contrary direction: therefore ships should not venture to enter the *Port*, unless with a fresh wind blowing right into it. But when in the *Port*, vessels, in order to be less exposed to the *Bora*, should be moored under the eastern coast, or close to the town, so that they may avoid dropping on the coral bank which lies right off the town.

Grebascizza, or *Sebenico Vecchia*, is an inlet 2 leagues to the southward of the entrance to *Sebenico*, having the *Island Plana* at its entrance: this island, in entering, must be left to the starboard. *Ragonizza* lies at the base of the Dalmatian mountains, about 13 miles from *Sebenico*; here is a village, and a harbour which affords anchorage; towards the north is a *Chapel* standing on the side of a hill, and forming a remarkable object. Opposite to the entrance to *Ragonizza* is the little *Island of Mulo*.

The coast from hence turns more to the eastward: numerous little ports line the Dalmatian shore, forming convenient places for small vessels to occasionally run into. About E. S. E. $\frac{1}{2}$ S. (S. E. $\frac{1}{4}$ E.) from *Mulo Island*, distant $5\frac{1}{2}$ miles, is *Arcangelo Island*, lying off the S. eastern Point of *Trau Vecchio*. From hence a range of islands extends E. S. E. (S. E. $\frac{1}{4}$ E.) towards *Brazza*: these are called *Zirona Piccola*, *Zirona Grande*, *Orud*, *Stipanska*, and *Solta*; between which are several passages to *Trau* and *Spalatro*.

TRAU stands on an *islet*, having, on the one side, the main land, and on the other, the *Island of Bua*, being connected with the former by a bridge, and with the latter by a mole of brick-work, having a drawbridge to admit the passage of vessels, which generally are numerous, the coasters preferring this inland channel to the open sea. The trade here is considerable, the population about 3000, and the situation pleasant; the adjacent country produces corn, wine, oil, cheese, wool, figs, and almonds; the grapes and olives being of the first quality. The *Steeple of St. Giovanni Church* in *Trau* is in latitude $43^{\circ} 30' 55''$ N., and longitude $16^{\circ} 15' 10''$ E.

The *Island of Bua* is near $8\frac{1}{2}$ miles long, and forms a good shelter for the *Road of Trau*, as well as the *Bay of Castelli* and *Spalatro*, which lie to the eastward. In the *Road of Trau*, vessels may anchor in 3 and $3\frac{1}{2}$ fathoms, opposite to the *Fort of Seghetto*; or they may run up the western inlet to the *Town of Bossighiana*, in which are from 8 to $2\frac{1}{2}$ fathoms. In sailing to or from *Trau*, the greatest care is requisite; for in taking the channel between *Arcangelo* and the *Zirona Piccola*, there are some spots of shallow water; and at the entrance of the *Port* are the *Kluda*, and other rocks, making the channels narrow and dangerous: there are other rocks further in; a pilot therefore is absolutely necessary. To the southward, and about midway between the little *Island of St. Euphemia* and *Solta*, is a sunken rocky shoal, called *Macina Shoal*: there is deep water going in on either side of it.

SPALATRO is about 8 miles to the eastward of *Trau*, and stands on a kind of isthmus, which runs out to the westward towards *Bua Island*; between these is the entrance to *Castelli Bay*, the channel into which is a mile wide, with 14 fathoms water: this is a spacious, open Bay, and there is anchorage for any sort of vessel with 15, 17, and 19 fathoms water, or nearer land in any lesser depth; but there are some shallow spots about the *Village of Bua*, and also some rocks toward the eastern end near *Salona*, which must be guarded against. The *Town of Spalatro* is in the province of *Pogliazza*: it is a fortified town, standing in a circular form near the sea, and having a spacious harbour;

but open to the south-east and south-westward, and therefore subjected to the storms which so frequently happen. The defences on the land-side also are strong, but greatly dependent upon the *Pass of Elissa*, in the mountains. The population of this place was formerly 8000, and a brisk trade was carried on in woollens, silk, leather, iron, copper, wax, orpiment, corn, &c.; but its present inhabitants are diminished to about 1500, and the commerce much deteriorated. There are many remains of antiquity about the environs of *Spalatro*, particularly a Temple of *Dio-clesian*, which is still in good preservation, and now converted into a cathedral. It is in latitude $43^{\circ} 30' 25''$ N., and longitude $16^{\circ} 26' 20''$ E.

About 4 miles to the eastward of *Spalatro* is a little port, called *Stobrez*, within which is the *Fort of Zernoviza*: it has a shallow harbour, fitted only for small vessels. *Almissa* is 12 miles E. S. E. $\frac{1}{2}$ E. (S. E. by E.) from *Spalatro*, and erected upon the declivity of *Mount Borak*, on the banks of the *River Cettina*: near it is a convent; and on an eminence is a fortress which commands the town and harbour. To enter the latter, you must avoid a rock on the starboard side of the entrance. The signal-staff on *Mount Borak* is in latitude $43^{\circ} 25' 53''$ N., and in longitude $16^{\circ} 43' 58''$ E. The land now turns east south-eastward (S. E. $\frac{1}{2}$ E.) to *Macarska*, distant 18 miles: this is a little town standing at the foot of the *Mountain Biscovo*, and has a small port, where coasters run into, sheltered by the land, but quite open to seaward. *Macarska Steeple* is in latitude $43^{\circ} 17' 32''$ N., and longitude $17^{\circ} 1' 5''$ E. About 4 miles to the northward of *Macarska* is the *Town of Basta*, standing on a mountain inland. *Gradaz* is about eighteen miles to the south-eastward of *Macarska*; it is a small place, and has no port, but stands on a point near the sea. Five miles further is *Port Placcia*, situated at the northern point of the *Marshes of Narenta*.

NARENTA was formerly a port of some importance, but has now lost all its consequence, and become a small town: its fortress, *Fort Opus*, has sunk to ruin, and its town, built on the site of the ancient *Norona*, has only a population of about 700. It stands on the side of the *River Narenta*, which takes its rise in the Turkish province of *Bosnia*. The land on the sides of this river is fertile, but towards the sea it becomes marshy, the exhalations from which render the surrounding country very unwholesome: nevertheless, the above towns produce wax, honey, figs, almonds, olives, mulberries, and other fruits; and the rivers abound with anchovies, mackarel, and a variety of other fish; all which form articles of exportation.

From abreast of the entrances to *Narenta* an inlet runs S. E. by E. (S. E. $\frac{1}{2}$ S.) full 18 miles to *Zamaslin*. This inlet is bounded on the S. W. by the *Peninsula of Sabbioncello*, and, opposite to *Narenta*, is 4 miles wide, narrowing as you advance to the southward: on the eastern side is a harbour running in to the *Town of Klek*, having the *Fortress of Smerdan* on its northern shore, and behind it the *Mount Ulako*. This port has 10 fathoms within it, and is clear of danger. To the westward of *Klek* is *Briesta*, another port with good water, but much encumbered with the *Islands of Pucegnac* at its entrance. The *Peninsula of Sabbioncello*, from *Briesta*, bends somewhat circularly to the W. N. W. (N. W. $\frac{1}{2}$ W.), and ends at *Cape Gomena*, in latitude $43^{\circ} 2' 38''$ N., and longitude $17^{\circ} 0' 20''$ E.: there are several towns on its shore, two of which are named *Trapano* and *Duba*.

LESINA. This is a long and narrow island, running W. $\frac{1}{2}$ N. and E. $\frac{1}{2}$ S. (W. N. W. $\frac{1}{2}$ W. and E. S. E. $\frac{1}{2}$ E.), 37 miles. It is mountainous, and in its highest parts barren and rocky, but the vallies are generally fertile; it produces wine, olives, and fruit in abundance; also rosemary, which the inhabitants prepare into a water by distillation: there is a remarkable kind of fine and valuable marble, which, with a small quantity of wool and corn, constitutes the principal exports of this island. The whole population is about 17000. At the eastern end of the island are the *Town and Tower of St. Giorgio*, having a little narrow port for small craft; and off its southern side is the *Island Torcola*, lying about 20 miles to the westward of *St. Giorgio*: this island lies E. and W. (E. S. E. $\frac{1}{2}$ E. and W. N. W. $\frac{1}{2}$ W.), and is $3\frac{1}{2}$ miles long, and one mile broad; the channel between it and *Lesina* being $1\frac{1}{2}$ mile wide, with 14 and 20 fathoms in it, clear of all danger: there is a church upon this island, and a little port, where the ground is good, and you may find shelter with almost any wind. Four and a half miles N. W. (N. N. W. $\frac{1}{2}$ W.) from *Torcola* are a grotto and chapel, called *Monte St. Nicolo*. Directly south (S. by W. $\frac{1}{2}$ W.) from *Grotto Point*, distant 3 miles, and west (W. N. W. $\frac{1}{2}$ W.), 4 miles from *Torcola*, are the *Bacili*, two small islets, with

reefs attached to them: give them a small berth on any side, and there is no danger in passing.

The *Port of Lesina* is 4 miles from the western end, and is open to the west: it is bounded on the southward by the *Spalmador Islands*, and on the northward by the long point of the island which terminates at *Cape Pellegrino*: the haven is small, but safe, and capable of containing three or four ships; being defended by a castle, called *Fort Imperial*, in latitude $43^{\circ} 10' 45''$ N., and longitude $16^{\circ} 27' 4''$ E., and situated on the summit of a marble mountain. The town is not large, but has about 12000 inhabitants, who are employed as mariners, fishermen, or builders of vessels. In entering this *Port*, you should steer close to the southernmost *Point of Lesina*, for the ground there is clean, and the water so deep, that you may almost lay your ship's side to the shore: leave all the islands and rocks on the larboard side, except one, which is to remain on the starboard; and when you are fairly in, you may lie close to the town in from 10 to 12 fathoms water, moored to both sides with fasts on shore. This passage is easy, going either in or out.

About 4 miles to the north-westward of *Port Lesina* is *Port Pellegrino*: this is a commodious spot, entering between two hills, where you will be land-locked, and may fasten your vessel to the rocks. Between *Port Pellegrino* and *Port Lesina* is *Port Grego*, another safe haven, where also you may ride secure, being fastened to the rocks; and as this haven is narrow, you should have your hawser ready to fasten to the rock as soon as you get in. In cases of necessity, you can anchor between these ports and the islands which lie before them; but the ground is in many places foul, and the depth from 36 to 30 fathoms.

Nearly 10 miles from *Cape Pellegrino*, on the northern Coast of *Lesina*, is *Citta Vecchia*: this is a wide harbour, running in E. S. E. $\frac{1}{2}$ S. (*S. E. $\frac{1}{4}$ E.*), sheltered on the S. W., South, and S. E. by the *Island Lesina*, and on the N. E. by a crooked promontory jutting out from the same island, but it is open to the N. westward. *Citta Vecchia*, or the *Old City*, is situated at the eastern and furthest end of the *Port*, and on the banks of a small river. In this harbour are 10 and 14 fathoms at its entrance, 24 further in, and 6 opposite and near to *Citta Vecchia*. Having rounded the *Promontory*, and sailing to the eastward, you will see *Port Zukova*, an open roadstead, at the bottom of which is the *Village Radine*. Five miles beyond *Zukova* are the *Village* and *Port of Verbosca*, and a little beyond that, the *Town* and *Harbour of Gelsa*, frequented on account of its quarries of most beautiful marble. Six miles and a half eastward of *Gelsa* is the *Village of Zastrasiki*, having also a small port. Two miles and a half more easterly is *Port Coperto*, a place of little importance, and only calculated to run a vessel into in cases of emergency: there is no other place of shelter until you reach *St. Giorgio*, the east end of *Lesina*.

BRAZZA. This is a considerable island, being 20 miles long, and 7 miles broad, very mountainous and rocky: the industry of its inhabitants, however, turns it into cultivation, continually diminishing the woods, and increasing their quantity of cattle. The corn they grow does not supply their wants at present, but the vegetable productions of oil, figs, almonds, saffron, and mastic are abundant; the wine produced here is esteemed the best in Dalmatia: honey and silk are cultivated with great success, and their cheese and wool are in much repute. Their breed of sheep and goats, their rearing of bees, and their fisheries, contribute to furnish employment for a population of 15 or 16,000. There are nineteen or twenty villages on the island: the chief of these is *Nerissa*, situated inland at the N. western part of the island; this is the residence of the Governor. *Port Milna* is at the N. W. part of the island, and opposite to the *Island of Solta*; it is shallow, and fit only for small vessels: the Church is in latitude $43^{\circ} 19' 29''$ N., and longitude $16^{\circ} 26' 57''$ E. On the southern side of the island is the *Town of Bol*, which is rather large, but has no harbour: this will readily be known by *Mount St. Vito*, standing a little to the north-westward, the signal-staff on which is in latitude $43^{\circ} 16' 43''$ N., and longitude $16^{\circ} 37' 18''$ E.

SOLTA ISLAND is situated to the north-westward of *Brazza*, and lies nearly E. S. E. $\frac{1}{2}$ S. and W. N. W. $\frac{1}{4}$ N. (*S. E. $\frac{1}{4}$ E. and N. W. $\frac{1}{4}$ W.*), being 10 miles in length, and 2 miles in breadth. Its chief produce is honey, and the island is covered with woods, among which, as well as upon *Brazza*, there are numerous vipers. This island is a dependency on *Brazza*. There is the small *Port of Sordo* on its north-eastern side, and two or three others on the south-east; but these are only fit for small craft. There is a good passage between *Brazza* and *Solta*; it is narrow, but

with sufficient water for any vessel. Off the western end of *Solta* are the *Islands Rotal* and *Stipanski*, with channels between each, leading to *Port Olivetto*; but the main passage is between *Stipanski* and *Solta* on one side, and *Orud* and *Zirona Grande* on the other, chiefly used in going to *Trau*, *Spalatro*, &c.

LISSA. This island is high and mountainous, and produces a considerable quantity of wine and oak-timber; both of these articles are exported to *Malta* and other places, which commerce has latterly much improved the condition of its inhabitants. It is but thinly peopled; but they are a stout, well-made, and hardy race. The island produces wine, olives, almonds, honey, mulberries, and figs, but not much corn. There are two good harbours and an extensive fishery, salt-fish and anchovies being articles of exportation. In approaching this island from the southward, you will perceive the signal on *Mount Hum*, in latitude $43^{\circ} 1' 43''$ N., and longitude $16^{\circ} 6' 54''$ E. The *Port of St. George* is on its N. eastern side, and capable of containing several sail of the line. This is accounted one of the best ports in *Dalmatia*, and fully capacious enough to admit a large fleet: the rocks which lie outside of its entrance, the towers standing round it, and the land in the interior, will always be sufficient objects to point out its situation. When you are entering with a S. E. wind, keep at some distance from the island, in order to avoid the gusts of wind which then blow from the heights. If vessels of less burden than a brig should not be able to make *Port St. George*, with the wind from the south, then it will be easy to take shelter in the adjacent *Bay of Carober*. At the entrance of *Port St. George* lie the *Scoglio la Vacca*, and the *Scoglio Ost*: there are passages between them and *Lissa*, with 10 and 11 fathoms in them; but the main channel is to the westward of the *Vacca*, and the eastward of the *Scoglio Ost*: here, mid-channel, you will have 32 and 31 fathoms, until you get abreast of *Point St. George*, where the bottom is rocky. Proceeding further in, the soundings lessen to 22 and 21 fathoms, and the ground soft mud; here you may anchor before the *Town of Lissa*: small vessels run into the *Cove* to the south-westward, and anchor in 6 and 5 or 4 fathoms very near to the shore. These anchorages are good and well-sheltered. On the N. western point you will see two towers, and on the north-eastern side, one: these were erected when the island was in the possession of the English in 1808. To the West (*W. N. W. $\frac{1}{2}$ W.*) of *Port St. George* is *Port Carober*, within which a vessel may ride in 14 fathoms, or further in, with less water. Before the entrance of this *Port* lie some small rocky islets, called *Scogli Vitelli*: in steering for *Port Carober*, you may sail on either side of them; but at night you must use the inner passage with caution.

Port Kamisa is at the western end of *Lissa*, and may be known, as you advance towards it, by the *Mountain of Hum* above it, upon which is a signal-tower, already noticed. At the S. W. end of this *Port* you will ride sheltered by the *Island Busi*; but a west and N. W. wind blows right in: the anchorage must therefore be close under the *Point*, which is steep; because, should it blow hard from the N. E., you will be apt to be carried off. There is also temporary anchorage off the southern coast of the island, and the bottom is generally good all round it. There are several small islets and rocks off its south-eastern side, within which the fishing craft frequently pass; but this should not be attempted by strangers, for there are many *sunken rocks* and dangers among them. Fresh water may be obtained at the *Island of Lissa*, but it is not plentiful; their beef is indifferent, but their mutton very good.

Busi Island lies S. W. by S. (*S. W. $\frac{1}{2}$ W.*) from *Kamisa*, distant 4 miles. It lies nearly N. and S. (*N. by E. $\frac{1}{2}$ E.* and *S. by W. $\frac{1}{2}$ W.*), being $2\frac{1}{2}$ miles in length, and one mile in breadth. It is high, and has a signal-tower at its summit, in latitude $42^{\circ} 57' 42''$ N., and longitude $16^{\circ} 1' 3''$ E.: there is deep water all round it, and a good channel between it and *Lissa*.

ST. ANDREA. This island lies West (*W. N. W. $\frac{1}{2}$ W.*) from the *Island of Lissa*, distant 14 miles. It is high, and covered with trees. E. S. E. (*S. E. $\frac{1}{2}$ E.*), distant two miles from *St. Andrea*, is *Brusnik Rock*, above water, with 3 and 6 fathoms round, but deep water further out. S. E. (*S. S. E. $\frac{1}{2}$ E.*), distant $2\frac{1}{2}$ miles from *Brusnik*, is a shoal of 8 fathoms water; it is of very small extent, and has 17 and 22 fathoms close to it. West (*W. N. W. $\frac{1}{2}$ W.*) from the western point of *St. Andrea*, distant $1\frac{1}{2}$ mile, is the *Rock Kammik*, of small dimensions, but above water; and close to this *Point of St. Andrea* is a rock under water, between which and the island there is no passage.

POMO. This is a small but elevated *Rock*, rising out of the sea like a huge pyramid. It bears from the *Island of St. Andrea* W. N. W. $\frac{1}{2}$ W. (*W. N. W. $\frac{1}{2}$ N.*), distant 13 miles, and from the *Island Pelagosa* N. W. $\frac{1}{2}$ N. (nearly *N. N. W. $\frac{1}{2}$ W.*), distant 55 miles, being in latitude $43^{\circ} 5' 27''$ N., and longitude $15^{\circ} 27' 40''$ E. There

is a *shoal* to the W. N. W. $\frac{1}{2}$ W. (*W. N. W. $\frac{1}{2}$ N.*), distant one mile, which is dangerous, having only 2 fathoms upon it, but 100 fathoms close to its S. eastern side; between it and the *Rock Pomo* are 38 fathoms, and between *Pomo* and *St. Andrea* 75 and 65 fathoms, the bottom mud.

CURZOLA. This is a large island, lying to the southward of *Lesina*, in nearly an East and West (*E. S. E. $\frac{1}{2}$ E.* and *W. N. W. $\frac{1}{2}$ W.*) direction, or nearly in a parallel with *Lesina*, its length being 25 miles, and its breadth about 4 miles. On it are forests of oaks, pines, and other timber for ship-building; it also possesses excellent vineyards and good fisheries, but little corn. There are sixteen towns and villages, and a population of 7 or 8000.

Curzola Town stands near to the N. eastern end of the island, and is walled round, having a dock, a cathedral, and a port, with a good *mole* and *roadstead*. It is defended by the *Fortress of San Blas*, in latitude $42^{\circ} 57' 25''$ N., and longitude $17^{\circ} 7' 59''$ E. *Curzola* is distant from the opposite shore of *Sabbioncello* three-quarters of a mile, having a safe channel between them, with a depth of from 16 to 20 fathoms water, except at the eastern end of *Curzola*, where there are a good many rocks; but these are all above water, and therefore may easily be avoided. If you are passing through this channel, either to the eastward or westward, you should keep nearer the *Sabbioncello Shore*, where you will have 9 and 8 fathoms water; and you may anchor opposite the *Town of Sabbioncello*, in from 18 to 8 fathoms. On the southern side of *Curzola* there are some places of fair anchorage. Fifteen miles to the westward of *Cape Speo* is *Port Berna*, with good riding at the mouths of two little rivers, and further on, at *Port Carboni*, where a number of small islets line the shore, and afford shelter to the vessels within them. This part may readily be known by a *lofty mountain* inland, having a white roadway running up it. There is also safe anchoring at *Port Tre Porti* near the S. west end of the island, in 4 and 5 fathoms water, sheltered by the islands to the southward. Having passed the *Point of Kancira*, which is the S. western point of *Curzola*, you will open the *Valle Grande*, at the eastern end of which is the little church of *St. Giovanni di Blatta*, in latitude $42^{\circ} 58' 5''$ N., and longitude $16^{\circ} 40' 34''$ E. Within this bay are several small islands, with sufficient water on their sides to sail round them. This anchorage is too open to the westward to confer any security. Off the N. west point of *Curzola* is the *Island of Prosido*, connected with *Curzola* by a *sandbank*, over which there is no passage for shipping.

CAZZA. This is a high island of semicircular form, lying S. W. by S. (*S. W. $\frac{1}{2}$ W.*) from *Point Kancira*, distant $10\frac{1}{2}$ miles; and from the S. W. point of *Lissa* S. E. $\frac{1}{4}$ E. (*S. E. $\frac{1}{2}$ S.*), $24\frac{1}{2}$ miles. A vessel may ride, during a northerly gale, under shelter of this island, in from 4 to 9 fathoms; but otherwise the island is steep to all round. The signal on the summit of *Cazza* is in latitude $42^{\circ} 46' 2''$ N., and in longitude $16^{\circ} 30' 54''$ E.

CAZZIOLA. This island is smaller than *Cazza*, and lies between it and *Lagosta*. It is 8 miles distant from the former, and 4 from the latter. There is good anchorage all about it; but a little to the northward of it is a *rock* above water, called *Kopit*; and $1\frac{1}{2}$ mile to the W. N. W. (*N. W. $\frac{1}{2}$ W.*) is another, named *Bielaz*. To the W. S. W. (*W. $\frac{1}{2}$ S.*) of *Cazziola*, distant half a mile, is a little *knoll* of 4 fathoms, with deep water all round; between this *knoll* and *Bielaz* are 33 fathoms, and between *Bielaz* and *Cazza* 61, 68, and 66 fathoms.

LAGOSTA. This is a mountainous island, of irregular form, $4\frac{1}{2}$ miles long, and 3 miles broad. At its N. W. end there is a good harbour, well sheltered. Some islands lie off it, between which the channels are good, and the water deep; but it will require great care in sailing into the harbour. To the north-westward is the small *Islet of Marciara*. On the south side of the *Island Lagosta* is *Port Rosso*, open to all winds from the southward, and having several *sunken rocks* about it. At the back of the harbour is *Mount St. Giorgio*, upon which is a *chapel*, in latitude $42^{\circ} 45' 1''$ N., and longitude $16^{\circ} 51' 45''$ E. Off the N. E. point of *Lagosta* is a cluster of *rocky islets*, terminating with the *Rock Taino*, which bears from the *Town of Lagosta* N. E. $\frac{1}{2}$ E. (*E. N. E. $\frac{1}{2}$ N.*), distant 5 miles. These islets have all passages between, but too dangerous for a stranger to attempt.

East (*E.* by *S. $\frac{1}{2}$ S.*) from *Lagosta*, distant $5\frac{1}{2}$ miles, is the western rock of the *Lagostini Cluster*, extending in a line nearly E. $\frac{1}{2}$ N. (*E. $\frac{1}{2}$ S.*), three miles and a half, having channels between them; and in the same direction, distant 8 miles from the easternmost rock, called *Glovat*, is *Point Palma*, the western point of *Meleda*.

MELEDA. This island lies E. S. E. $\frac{1}{2}$ E. and W. N. W. $\frac{1}{2}$ W. (*S. E. by E. $\frac{1}{2}$ E.* and *N. W. by W. $\frac{1}{2}$ W.*), being 20 miles long, and from 1 mile to $1\frac{1}{2}$ broad. It is mostly high land, but occasionally diversified with vallies and villages. The population of this island

ed to be above 2000. It has several small ports, the principal of which are : N. West end of the island. Here is *Port Palazzo*, having a *Palace* and the further end, in latitude $42^{\circ} 47' 6''$ N., and longitude $17^{\circ} 22' 50''$ E. There islands at its entrance, between which is water sufficient for small vessels to d when within them, you will almost lie land-locked. *Port Palma* is of ascription, and defended by the islets which lie about the northern end of the turning round to the southward, you will see a long low *Point* running E. S. E. E.) above 3 miles ; behind this is *Port Lenga*, a narrow but secure harbour : a few *shoals* and *rocks* before its entrance, which must be guarded against. es from *Port Lenga* is *Ogliran Rock*, lying about half a mile from the coast, fathoms between them. E. $\frac{1}{2}$ S. (E. S. E. $\frac{1}{2}$ E.), two miles further, is a ck, with 14 fathoms between it and the island ; beyond this, at nearly the unce, but rather further off-shore, is the *Rock Lukovaz*. All these rocks have r round them. Three and a half miles beyond *Lukovaz* is *Port Gruì*, near nd of the island. The southern shore of *Meleda* is steep throughout ; and ast end, or *Point Gruì*, is *Mount Plagnach*, in latitude $42^{\circ} 41' 16''$ N., and $17^{\circ} 45' 10''$ E. Off the east end of *Meleda* is *Mela*, and an *islet* within it, hich a vessel will lie sheltered with any wind. On the N. E. coast there r three small *inlets*, used by coasting vessels, of which *Port Suvra* is the his is about $6\frac{1}{2}$ miles from the east end of the island, and has from 9 to 12 water in it. Here, inland, to the eastward, is the *Village of Proguira*, and to ard, *Babinopoglie*. *Port Croce* is 2 leagues to the eastward of the west end nd, and is only fit for small craft.

MAIN LAND. E. by S. (E. S. E. $\frac{1}{2}$ S.) from *Cape Speo*, in *Curzola*, is the iuliana, on the main land of *Sabbioncello* ; this is an open *roadstead*, and has kes and *shoals* within it. Off its southern *point* also is a *rock* above water ; e to the shore, and has no passage for shipping within it.

the *Point of Giuliana* the coast runs E. S. E. (S. E. $\frac{1}{2}$ E.) for 15 miles, high land and steep-to, without any sort of danger. Here a *point* turns to ard, from whence a string of islands, *Olipa*, *Jakliun*, *Giupana*, *Mezzo*, and , extends, having *channels* between each of them, leading to *Stagno*, *Slano*, and there are good anchorages in and about these islands with any wind.

INO is a considerable town, and situated at the further end of a *creek*, on us which joins *Sabbioncello* with the continent ; it is defended by a *fortress*, ppa *Valoriz*, which is in latitude $42^{\circ} 50' 5''$ N., and longitude $17^{\circ} 40' 31''$ E. bitants of this town carry on a good commerce in the sale of fish, for which our is well adapted ; but its situation is unhealthy. *Slano* is in latitude $42^{\circ} 51' 0''$ N., and longitude $17^{\circ} 53' 0''$ E., and stands at the further end of a little ing on one side *Mount Timor*, and on the other *Mount Montorogo* : it e valley between them, and, like *Stagno*, is chiefly inhabited by fishermen. ce there is an inland *river*, which continues between the mountains to *Poglise* is a small *village* with a *roadstead* before it, where vessels may ceasion requires, in 4 or 5 fathoms water close in to the shore ; or run 's *Malfi* or *Ombia*, two narrow *creeks* to the south-eastward, which, though ave a good depth of water, and are well protected from the sea.

NNEL OF KALAMOTA. This *channel* offers the best shelter in winter st side of the *Adriatic Sea*, and there is room enough for a numerous fleet. mountains on the adjacent continent, and the *islands* which form one side of el, will sufficiently serve to point out its position. The best entrance is on e-eastward, between the *Islands Kalamota* and the *Pettini Rocks* ; but the hich runs between *Kalamota* and *Mezzo*, and that between *Mezzo* and *Giureferable* when the winds are N. westerly : the other passages between *Giupana*, *Olipa*, and *Sabbioncello*, are only fit for small vessels, and must then be adopted ion, being exposed to calms, gusts of wind, and eddies of the currents ; but ese, that called the *Bocca Falsa* is the best, on account of its being the widest. anchoring grounds in the *Channel of Kalamota*, for small vessels, are those of of *Gravosa* and *Slana* ; and for first-rate ships, that situation in the middle unnel, where the little *Rock of St. Andrias*, off the west point of the *Island of* , can be seen above water. But in whatever situation vessels may chuse to hey must not omit taking the usual precautions against the *Bora*.

USA is well situated ; the peninsula on which it is built, forms two large nodious *harbours* : it is sheltered by the mountains behind it from the north nd it is protected by a succession of almost inaccessible *rocks*. The town

is surrounded by a wall flanked by old *towers*, which are somewhat decayed; but the *harbours* are protected by modern works of considerable extent: the streets are generally narrow, with the exception of one which traverses the town from north to south. The Government House, the Cathedral, and some of the Churches are very good buildings. There is a *Mole* with a *Fort* at the end of it; this *fort* is in latitude $42^{\circ} 38' 10''$ N., and longitude $18^{\circ} 6' 46''$ E. The population of *Ragusa* is estimated at 10 or 11,000: the manufacturing establishments are not large, but they weave stuffs and silk, and are employed in ship-building, and carry on a fair trade with the *Levant* and *Italy*. The air is said to be wholesome, but the soil about it so barren, that chief of their necessary articles are imported from the neighbouring provinces; yet the islands opposite *Kalamota*, *Mezzo*, &c. are extremely fertile, well-inhabited, and have beautiful gardens. *Kalamota* has a *Church* upon it, serving to point out the situation of *Ragusa*: *Ragusa* will also be well known by the *Church* which stands upon the mountain above it.

Ragusa Harbour is exposed to the S. W. winds, but has good anchorage before the town in 8, 7, and 6 fathoms water; there is also a cove beyond it, where a vessel may ride in less water: the ground is good, and the water between *Ragusa* and *Ragusa Vecchia* is deep. Nearly opposite to the *Mole* is the *Island Lakroma*; there is a channel between it and *Ragusa*, but the great entrance will be between *Lakroma* and the little *Island of Pettini*, which channel is 2 miles wide, and has a depth of 48 fathoms. *Ragusa Vecchia*, or *Old Ragusa*, bears from *Ragusa* S. E. $\frac{1}{2}$ E. (S. E. $\frac{1}{2}$ S.), distant 5 miles: here also vessels may ride in 6, 7, or 8 fathoms; but there are several *sunken rocks* about, which render it necessary to make your anchorage with much caution.

In sailing for the *Port of Ragusa*, vessels commonly make for the *Island of Melleda*, and having arrived off its S. eastern point, or *Point Grui*, take an E. $\frac{1}{2}$ S. (E. S. E. $\frac{1}{2}$ E.) course for the *Port*, which will be known, as before observed, by the *Church of Kalamota*, and the mountain above *Ragusa*; in this track you will pass to the northward of the little rocky *Island of St. Andrea of Donzello*, which lies nearly E. by S. (E. S. E. $\frac{1}{2}$ S.) from *Point Grui*, distant 10 miles, and from the southern *Point of Kalamota* S. W. by W. (W. S. W. $\frac{1}{2}$ W.), distant 3 miles: this is a barren rock, with 9, 14, and 16 fathoms water round it. Between it and *Kalamota* the channel is clear, and the water deep: there will be 50 fathoms within a mile of the entrance to *Ragusa*.

Directly opposite *Ragusa Vecchia* is the rocky *Island of Markana*, upon which is a signal-tower, in latitude $42^{\circ} 34' 15''$ N., and longitude $18^{\circ} 11' 10''$ E.: between it and *Ragusa* you may sail in a depth of 24 fathoms. The coast now runs in a S. E. $\frac{1}{2}$ E. (S. E. $\frac{1}{2}$ S.) direction for 18 miles towards *Kattaro*, 6 miles before you come to which, a point of land juts out, forming the two little *Ports of Melonta*. *Port Grande* is open to the northern winds, and without shelter; but *Port Piccolo*, lying a little to the southward of the *Point*, is sheltered by a small island, behind which small craft occasionally anchor during gales from the northward.

KATTARO. This is an extensive and most peculiar harbour, well defended by both Nature and Art: here are a *Castle* and several strong *battlements*; and the rocky mountains which enclose it, rise to such a height, that in winter the sun can only be seen a few hours in the day. Its different *reaches* bend in various directions; and when once a vessel gets within it, she will ride completely land-locked on every side. A fleet of men-of-war, moored in chosen positions, might here weather the most impetuous gales from the northward, which blow suddenly from the adjacent mountains. The approaches to its entrance toward evening, or during the night, is dangerous, on account of the breezes which come off the land, and the currents produced by the numerous rapid rivers which run into it. This, in conjunction with the winds from the sea, increases the danger; while the swell produced by them, and the exterior current meeting in furious opposition with the interior ones, render the vessel at times almost unmanageable.

Vessels going to the *Town of Kattaro*, which lies at the further end of the *Gulf*, cannot pass through the *Straits of Kombir* and *Catene* when the wind is against them. The best anchorage for all vessels is between the *Lazaretto* and the *Point of Kombir*, a little to the eastward of *Castel Nuovo*. Brigs and smaller vessels may safely anchor in *Porto Rose*, which is on the starboard; and if not able to enter the *Gulf*, they may find shelter in *Port Zaniza*, on the starboard side of the entrance to the *Gulf*, which will be known by the *Mountains of Kassone* and *Falcone*.

At the entrance of *Kattaro* is a small island, called the *Scoglio Rondani*, with deep

ter all round it. To sail into *Kattaro*, bring the *Castle Nuovo* well open of *Point utia*, bearing N. $\frac{1}{2}$ W. (N. $\frac{1}{2}$ E.), and having passed that *Point*, turn E. by N. $\frac{1}{2}$ S.; and if proceeding for the *Town of Kattaro*, steer through the *Strait of mbir*, within which are 21, 24, and 26 fathoms water. To the southward are the *Islands of Kertoli and Teodo*, where lies the *Island Stradiota*, or *Soldier's Island*; the *ait of Catene* lies to the north-eastward: pursue that course, and when through it, to the southward, and anchor any where, the *Town of Kattaro* lying right before. The population is about 1500, mostly mariners. The signal on *Point Ostro*, western *Point of the Gulf*, is in latitude $42^{\circ} 23' 28''$ N., and longitude $18^{\circ} 31' 16''$ E. S. E. by E. (S. E. $\frac{1}{2}$ S.) from the entrance of *Kattaro*, distant 4 miles, is *Point so*, to the south-eastward of which are the *Town and Road of Traste*, where there is occasional anchorage in 9, 8, and 7 fathoms, opposite to the *Town*. S. by W. (S. W. $\frac{1}{2}$ W.) from the *Point of Traste*, distant one mile, and E. S. E. $\frac{1}{2}$ S. (S. E.), miles from *Point Remo*, is *Traste Rock*, or *Seca Albanassi*, which is dangerous, has only 5 feet water over it. The coast now rounds to *Point Platamo*, behind which is a small *Cove or Port* of that name; off this lies the *Scoglio St. Nicolo*, a rock above water. You will now see the *Port and Town of Budua*, having a castle seated on its point, and near it the high *Island of St. Nicolo*, behind which a vessel may find anchorage; but you cannot go between this island and the main, because they are connected to each other by a sandy spit. Inland is the *Convent of Stagnavitz*, the high *Mountain of Velagnatz*; between *Traste* and *Platamo* is also the *Mountain of Velagora*, by which this part of the coast may be recognised. The *Temple of the Greek Church in Budua* is in latitude $42^{\circ} 16' 33''$ N., and longitude $50^{\circ} 27''$ E.

From *Budua* the coast runs about S. E. $\frac{1}{2}$ S. (S. S. E. $\frac{1}{2}$ E.) to *Lastua* and *Antivari*. Before the former are the *Katici Rocks*, called also *Scoglio Santa Domenica*; they are above water, and have a good passage between them and the main, where there is anchorage, near a sandy beach. *Antivari* is 19 miles distant from *Budua*, stands inland above one mile from the sea: the town is situated upon a rising ground, and has a fortification round it, but the population is small. The Bay is open to the N. W. winds, yet the anchorage may be considered good, in from 10 to 7 fathoms: it has a sandy beach, where you may land, protected on the S. eastward by *Point Lido*, about which there are some rocks under water. From *Point Lido* the coast turns E. S. E. (S. E. $\frac{1}{2}$ E.) for 3 miles, and then direct South (S. by W. $\frac{1}{2}$ W.) towards *Dulcigno Vecchia*, before which is a rock above water: there is no passage for sailing between it and the main land. Two and a half miles from *Dulcigno Vecchia* is *Dulcigno Nova*, a town of 6 or 7000 inhabitants, having a strong castle and a mole, being, with *Antivari*, noted as the residence of pirates, whose depredations on the seas have latterly become most injurious to shipping.

THE BAY, or GULF OF LO DRINO. *Dulcigno*, in latitude $41^{\circ} 53' 45''$ N., longitude $19^{\circ} 11' 40''$ E., may properly be considered the northern point of this Gulf, and *Cape Rodoni* its southern extremity, these bearing from each other nearly E. by S. and N. W. by N. (S. by E. $\frac{1}{2}$ E. and N. by W. $\frac{1}{2}$ W.), distant 20 miles: it forms the northern half of the Gulf; the southern half extends from *Cape Rodoni* to *Cape Pali*, bearing from each other S. by W. and N. by E. (S. S. W. $\frac{1}{2}$ W. and N. E. $\frac{1}{2}$ E.), distant 15 miles. The shore within this space, from *Dulcigno* to *Cape Pali*, is all a low sandy beach, having regular soundings, decreasing gradually you approach towards the land. E. S. E. (S. E. $\frac{1}{2}$ E.) from the Mole of *Dulcigno* is the main entrance to the *River Bojana*, which is navigable so far up as the *City of Scutari*, the capital of *Northern Albania*, containing an extensive population of 12 or 13,000: this city has also a communication with *Antivari*. About 15 miles to the northward of this entrance of the *Bojana* is the other branch of the *River Nicolo*; West (W. N. W. $\frac{1}{2}$ W.), 2 miles from which, is the *Scoglio Peregrino*, between which and the shore there is a good channel with from 11 to 6 fathoms depth. Vessels may anchor behind this rock, and also before the entrance of the *River Drino*.

S. E. by E. (S. E. $\frac{1}{2}$ S.), 10 miles from the *Bojana*, is the *River Drino*, which runs into the sea in several branches, formed by the alluvial soil the river continually deposits: this river is navigated by rafts for nearly 100 miles inland, and runs through some extensive forests. Near its eastern bank is the *Town of Alessio*. Between the northward of the entrances of the *River Drino* are the little port and anchorage of *St. Giovanni de Medua*, fitted for small vessels. A woody valley succeeds the *Drino*, and continues southerly to the *River Maffi*, before which is a shoal

formed similarly to the *Drino*, and extending a mile out. Three miles from the *Maffi* is the little *River of Imzo*, or *Hismo*, near which stands the *Fort of Tukeimil*; the landing-place is close to the southward of the river. W. by S. ($W. \frac{1}{2} N.$), distant 5 miles from the *River Hismo*, is *Cape Rodoni*, in latitude $41^{\circ} 37' 40'' N.$, and longitude $19^{\circ} 28' 10'' E.$ Off the point of this *Cape* are some rocks both above and under water; therefore vessels coasting along shore must be careful to give it a proper berth in passing. S. $\frac{1}{2} E.$ ($S. \frac{1}{2} W.$) from *Cape Rodoni*, distant $11\frac{1}{2}$ miles, is the entrance to the *River Djakon*, or *St. Stefano*, before which shallow water runs out a considerable way: upon this there appears to be a *sunken rock*, and a *shoal* extending all along shore to *Cape Pali*. There is anchorage all the way from *Rodoni* to *Pali*, but you must not go too near the land, as it is exposed to every wind that blows. *Cape Pali* is in latitude $41^{\circ} 23' 0'' N.$, and longitude $19^{\circ} 24' 30'' E.$ There are some *sunken rocks* about it; therefore, like *Cape Rodoni*, it requires a berth in passing.

DURAZZO lies S. by E. $\frac{1}{2} E.$ (*South*) from *Cape Pali*, distant $5\frac{1}{2}$ miles, and was formerly a place of considerable importance: its citadel is now in ruins, and its population dwindled down to about 5000. Off its north-west point a *spit* runs out nearly 2 miles into the sea, at the extremity of which are 3 fathoms water: this reef continues along shore towards *Cape Pali*. The Bay is about 7 miles broad from *Point Durazzo* to *Cape Laghi*, which latter bears nearly South (*S. by W. $\frac{1}{2} W.$*) from *Point Durazzo*. In this Bay you may anchor in 4 fathoms, about a mile and a half to the S. S. E. $\frac{1}{2} E.$ (*S. by E.*) from the town. There is also a *spit of shallow water* running off the south side of the Bay, towards the northern reef, and having a clear channel between them. Here, on the shore, is *Pietra Bianca*, and further south, the *River* and *Town of Kovaja*. *Cape Laghi* has the *Tower of Guerrin Meschin* upon it, in latitude $41^{\circ} 10' 10'' N.$, and longitude $19^{\circ} 26' 0'' E.$

From *Cape Laghi* the land extends S. by W. (*S. S. W. $\frac{1}{2} W.$*) 22 miles to *Point Samana*, the whole coast being low, and the beach sandy: the soundings decrease gradually towards the land, and there is no danger whatever. *Point Samana* is very low, and has a small river near it: this runs into the sea by several channels, forming a *sandy shelf*, which stretches out a considerable way, and lines the shore both northward and southward.

AULONA, or *VALONA*. The land from *Point Samana* to the *Town of Aulona* continues low and sandy; inland are marshes and lakes, without either town or village situated near the coast. About midway, in latitude $40^{\circ} 38' 0'' N.$, is the entrance to the *River Vojutza*, before which are several little islands and rocks: the shore all the way is shallow, and must not be approached too near. The Bay of *Aulona* is formed by the *Island of Saseno*, which divides the entrance into two excellent channels; in these there are no dangers whatever to be feared. The north-eastern entrance is between the *Island Saseno* and *Cape Tre Porti*, being 5 miles broad; the S. western channel is between the *Island of Saseno* and *Cape Linguetta*, and is $2\frac{1}{2}$ miles in width. In entering this latter passage, bring the *Fortress of Aulona* to bear East (*E. S. E. $\frac{1}{2} E.$*), and steer midway in. To sail in by the northern channel, keep in the centre between *Tre Porti* and *Saseno*, and it will lead you abreast of the town. The anchorage is well protected by the *Island* and the high land of *Cape Linguetta*. The environs of *Aulona* are mountainous, and diversified by plantations of olive and other trees. The Custom-house is situated in latitude $40^{\circ} 27' 15'' N.$, and in longitude $19^{\circ} 26' 20'' E.$

The *Town of Aulona* is situated at the declivity of the interior mountains, and contains about 5000 inhabitants. The landing-place is near an old *fortress*, and the remains of an ancient *Mole*, that once projected a considerable way out, and still serves to assist the boats to land; for the water is so shallow, that you cannot approach within several yards of the beach. From the above *fortress* there is a road to the town, passing many Turkish sepulchres. Its manufactures are few and trifling; though the arms made in this town are in much repute, yet the natives carry on little or no foreign trade, although the vessels which arrive here from the *Archipelago*, *Malta*, and *Sicily*, come for the express purpose of barter. Their natural productions are excellent of their kind: wines are high-flavoured, but little is made; tobacco is excellent, and their oil and corn good. In January, 1810, Mr. Galt asserts, oxen were selling at 10 dollars per head, and the best sheep for 15 shillings; but the cattle are not numerous, their sheep are large, and the wool very coarse. From *Italy*, *Aulona* receives gun and pistol-barrels, glass, paper, and Calabrian capotes; and returns oil, wool, gall-nuts, and timber. The town was in 1800 almost depopulated by the plague, from which it does not appear to have yet recovered; and the stagnant marshes in

the environs render the place unhealthy: the streets have a dirty appearance, although the surrounding country is so beautiful. Fresh water may be obtained from a spring close to the sea, where it gushes out in great abundance. And Mr. Galt states, "that where he embarked, on his return to the polacca, was a vast spring of fresh water, issuing from under the rocks in a stream sufficient to form at once a respectable river. The greatest effusion is within the salt-water-mark; but at one place, where the sea is not less than 10 feet deep, it rises with such force, that the water may be taken up perfectly fresh. It is stated there are five similar fountains flowing into the harbour, and that this one is not the largest."

The Island Saseno is uncultivated and uninhabited, unless occasionally by the Albanian shepherds. There is said to be a good watering-place on its eastern or inner side, where it rises from a spring in the mountains. The island is about 2 miles long, and one mile broad, and the depth of water between it and *Tre Porti* is from 6 to 18 fathoms, the former water being near the island, and the latter near *Tre Porti*: between *Saseno* and *Cape Linguetta* are from 31 to 14 fathoms. The Custom-house is near the little fortress in ruins, before which you can anchor in 22, 19, or 12 fathoms, or towards the S. western part of the harbour, in 8, 6, or 5 fathoms, near *Port Ragusin*, and under the high land of *Cape Linguetta*, opposite to a mill and fountain.

Cape Linguetta may be considered the south-eastern point of the *Adriatic Sea*, and is in latitude $40^{\circ} 25' 20''$ N., and longitude $19^{\circ} 14' 40''$ E.

GENERAL REMARKS AND OBSERVATIONS RESPECTING THE ADRIATIC SEA.

Nature of the Coasts. The nature of the eastern coast of the *Adriatic Sea* is so different from that of the western, and so important are the consequences which result from navigating along the one instead of along the other, that mariners ought to be careful how they act, in this respect, before they resolve to get under sail. The south-western coast is low, extremely fertile, and washed by a deep sea; it is also very populous, and abundant in the necessities of life, and fresh water; excepting only that part which lies to the south-eastward of *Mount Gargano*, where water is generally scarce during the summer months. The most northerly part of the western coast, that which lies between *Rimini* and *Monfalcone*, is extremely light, sandy, marshy, and full of shoals, occasioned by the many rivers which discharge themselves in that part.

On the contrary, the eastern part of the Gulf, except that portion which lies between the Bays of *Durazzo* and *Aulona*, is generally high, rocky, and thinly peopled; producing few of the necessities of life, and like many places in *Dalmatia*, without fresh water. The sea along the coast is deep, and full of islets, rocks, and shoals, which render the navigation somewhat difficult, and indeed dangerous; more especially whenever vessels are overtaken by the *Bora wind*, which commonly prevails with much force upon that coast, and generally comes on suddenly. Yet, notwithstanding these unfavourable circumstances, it is more prudent in the mariner to navigate along this eastern coast, than to steer through the middle of the *Adriatic*, or along the western coast; as the first offers, in all parts of it, good shelter and excellent harbours, not only shielding you from the fury of the *Bora*, but also protecting you from any other wind by which vessels may be overtaken: while, on the contrary, in the second, they will hardly find in the Roads of *Brindisi*, *Manfredonia*, the Port of *Ancona*, or the Road of *Goro*, any good anchorage to enable them to withstand the impetuosity of these winds.

WINDS. The *Bora*, which blows from E. N. E. to N. N. E., or nearly right off the eastern coast of the *Adriatic*, where it has its origin, and more commonly prevails than in any other part, is less formidable from its violence, than the sudden and rapid impetuosity and the furious gusts with which it rushes from the defiles of the mountains, and the several outlets formed by the islands; so that vessels are in great danger of being, in a short time, blown from thence upon the Coast of Italy, or of losing their masts, in consequence of the great swell of the sea, occasioned by so violent a wind. Therefore, when a vessel is so overtaken by such wind, she ought to make every effort to get into some port or anchorage on the eastern coast; but in case she should not be able to gain such shelter, she will be under the necessity of turning over to the western shore, which, with the exception of the Port of *Ancona*, and the Roads of *Manfredonia* and *Brindisi*, have no shelter whatever; and these ports are themselves quite open, and extremely dangerous.

The *Bora* blows very furiously about *Sebenico*, *Macarska*, *Narenta*, and *Kattaro*:

but the part where it is commonly most violent is in the *Quarnero*; therefore, *in* winter, vessels must adopt the greatest precaution in making for its entrance. The commencement of the *Bora* is generally indicated by some dark clouds, which rise up with great velocity from the mountains; or by the lowness of the water, which, at those periods, is most sensibly affected.

The *Bora* generally continues three days; and, in an advanced season, it will very often last nine, fifteen, or even as long as thirty days, many times subsiding at intervals; during which cessations it would be highly imprudent for any vessel to make sail, until the above-mentioned symptoms have entirely disappeared.

The *S. E.* is a wind which blows with considerable force in the *Adriatic*, creating an extremely high sea, and is accompanied with heavy rains; but then there is this advantage attending it, that vessels, at all times, will be able to gain the anchorages which the eastern coast affords. During winter this wind will often last a long while: it usually blows alternately with the *Bora*, and during the intervals they leave light and variable breezes.

After the third day it generally becomes most furious, and therefore most dangerous; because the swell of the sea which it creates, running in the direction of the *Adriatic*, progressively acquires a new force, and ends by becoming tremendous. Besides, if it should happen that, from the haziness of the weather, the coast, which you are close to, should not be distinguishable, then your vessel would be in great danger of being driven upon it.

This *S. E. wind* is commonly preceded by dark clouds, which cover the summits of the mountains and the isles; by a greater rise of water, and by the air being more temperate than usual. The *South wind* is also announced by similar appearances, and produces the same effect.

It is particularly dangerous when vessels, after having entered the *Adriatic*, happen to be driven towards that part of the coast which lies between *Aulona* and *Ragusa*; for there are no ports or places for them to run into easily for shelter. The *S. W.* and *West winds* are not much dreaded, nor the *North* and *N. W. winds*, since they do not create so great a swell of the sea; and besides, if it should not be possible to gain some port, with these winds you can readily run out of the *Gulf*.

In summer it will be of advantage for vessels, which leave the *Adriatic*, to keep to the *N. E. coast*, as it generally is subject to heavy *N. W. winds*, which, during the night, and part of the morning, leave light breezes at *East*. On the contrary, those who enter the *Gulf*, ought, during the summer, to keep over to the *Italian Shore*, as there are along that coast, during the night, and part of the morning, some light land-breezes, to which a *S. E. wind* generally succeeds.

CURRENTS. The repeated observations of the Pilots, and the numerous experiments made for obtaining the right soundings on both coasts, and in the middle part of the *Adriatic*, clearly prove, at all times, the existence of a general current, which, running in at the *Albanian side*, takes a *N. W.* direction along the eastern coast, turning to *S. E.* at the bottom of the sea, and running out of it, always sweeping along the *Italian Shore*.

The direction of that current, however, changes in many places, either from the form of the coasts, or the waters of the rivers which there discharge themselves into the sea. The force of these in summer is generally inconsiderable, and has very little effect on the navigation. The greatest irregularities are observed in the *Dalmatian Channels*, and in those of the *Quarnero*, in which there are currents quite contrary to the general one; therefore, the practical knowledge of these places is necessary for those who wish to navigate in them with safety.

The waters of the principal rivers of *Italy*, which discharge themselves into the *N. W.* parts of the *Adriatic*, where, in consequence of the mud brought down, and left there by them, the depth is less than in other places, not only create there a variety of currents, but also prevent the general current reaching those places, or at least having any sensible effect; for a strong wind is usually sufficient to change the current considerably, and this effect is principally observed when it subsides, after a continuance of two or three days; in which case, either it creates a current contrary to the general one, or it increases its force.

TIDES. The difference in the tides between high and low water in the *Adriatic* varies from one to four feet, according to local circumstances, to the winds that are blowing, and the position of the moon and sun. In the *Lake of Venice*, when the *S. E. wind* blows a long while, the tide rises as high as 4 feet; but when the winds are from the *North*, the tide hardly rises one foot.

To the above observations, which were translated from the notes to a Chart of the Adriatic, published at Milan, from a Survey made by order of the Austrian Government, we here add those of *Vincenzo di Luccio, Pilot of Venice*, as published by him in 1798, tending to shew the direction and velocity of the currents in the *Adriatic Sea*, at different periods of the year.

It appears that along the *eastern side of the Gulf*, from *Albania to Istria*, except in the *channels within the islands* in that space, across to the distance of 30 miles from the *Italian Shore*, the current sets *northward*, at the rate of one mile an hour during the day; but at sunset it turns *N. E.* for three hours, after which it becomes *easterly*, with somewhat less velocity, unless it has been calm weather for several days; then there is no perceptible diminution of its strength; as morning advances, it resumes its *northerly course*. But in case of a *squall*, the current will take the *opposite direction to the wind or rain* for four hours together, and then return to its *usual course*; and should a *second squall* come on, in about a quarter of an hour it will take its *opposition* to that also. But towards the *Italian Shore*, within the space of 30 miles from the coast, the current is subject to very considerable irregularities, according to the wind, the state of the weather, and the various months of the year. Thus,

In *January and February* the current sets, in fair weather, from sunset until two o'clock in the morning, to the *eastward*, with a velocity of $1\frac{1}{2}$ mile an hour; it then turns *S. S. W.* to three hours after sunrise, and thus remains as long as the calm lasts. But if, after a calm, a *N. W. wind* should arise, then the water becomes stationary for about six hours; and if this happen in the fore-part of the day, it will take a *south-erly course*, but if in the evening, an *easterly one*, running at the rate of two miles an hour; this periodical rotation continuing as long as the *north-wester blows*: and should the *N. W. wind* be followed by one from the *S. E.*, then, in the day, the current will set *S. E.*, and in the night, *East*, at the rate of three miles an hour. Again, if the *N. W. wind* should be followed by those from the *East*, blowing only a gentle gale, the set will be *easterly* $3\frac{1}{2}$ miles an hour, which course and velocity it will continue night and day.

Should a fresh gale from the *N.* or *N. E.* follow a *south-easterly wind*, then the current will set *E. N. E.* until the gale reaches its highest, when it will change to *E. S. E.*, and remain running in that direction as long as the gale continues. And if after the gale, a *S. E. wind* follows in day-time, the current will run *with the wind*, continuing at the rate of 3 miles an hour till sunset; but if in the night, it will set *eastward*, $3\frac{1}{2}$ miles an hour. Should a *S. E. wind* be succeeded by a gale from the *East*, then the stronger the gale, the more rapid the current to the *eastward* will be, until its velocity becomes 4 miles an hour; but after such gale, should the wind chop round to the *S. W.*, the current will be *motionless* for 6 hours, both by day and night; it will then accompany the direction of the wind for the following 6 hours; after which, by night, it will change its course to the *East*, and, by day, to the *S. E.* Observe, with its *S. W. direction*, its velocity will be two-thirds of a mile an hour; when it is *East*, at night, 2 miles an hour; and when *S. E.*, in day-time, $1\frac{1}{2}$ mile an hour; and these settings of the current, and corresponding velocities, will continue as long as the wind remains *S. W.* Whenever the *S. W. wind* ceases, and a *S. E.* succeeds, the two currents just noticed accelerate their velocity to 2 miles by day, and $2\frac{1}{2}$ miles by night; but if a *N. W. wind* follows, either by day or night, the current will constantly run *N. W.*, one mile an hour for six hours, and then in the morning turn *South*, and in the evening *East*, two miles an hour. And should it blow from the *S. E.*, *East*, *West*, *N. W.*, or *North*, then the current will oppose the wind at the rate of $1\frac{1}{2}$ mile an hour, continuing to do so until some one of the foregoing variations occur.

In the month of *March*, after fair weather has continued more than one day, the current will set *eastward*, with the velocity of $1\frac{1}{2}$ mile an hour, from sunset to sunrise. At break of day it changes *E. S. E.*, and then takes its course with the sun, at the rate of 1 mile an hour; and if, after fair weather, it should vary from the *S. E.*, it will run by day *S. E.*, $1\frac{1}{2}$ mile an hour until sunset, and by night *eastward*, 2 miles an hour. If from the *S. E.* the wind shifts to *East*, the current will by day run *S. E.*, $2\frac{1}{2}$ miles an hour, and by night *East*, 3 miles till sunrise, then returning to its *S. E. direction*.

But when the wind alters from *East* to *S. W.*, either by day or night, the current will run *S. W.* for six hours, at about two-thirds of a mile an hour; then turns, if by day, *S. E.*, at the velocity of $1\frac{1}{2}$ mile an hour; if by night, *East*, 2 miles, while the wind continues in that quarter.

When a *S. W.* is followed by a *S. E. wind*, by day the current will run *S. E.*, at the rate of $1\frac{1}{2}$ mile an hour, and by night *East*, 2 miles an hour:—this direction of the currents will regularly remain as long as the *S. E. wind* continues. And if the *S. E.* should be succeeded by a *N. W. wind*, the course of the stream by day will follow the sun with a rapidity of one mile an hour; but by night *East*, $1\frac{1}{2}$ mile an hour. Should there be a heavy gale during this month, from the *N. E. or North*, by day the velocity will be 3 miles an hour to the south-eastward, and by night $3\frac{1}{2}$ miles *East*. When the gale is over, with the *wind at S. E.*, the same course and strength will continue, whether by day or night; but should the above gale be succeeded by a *wind from the N. W.*, then the water becomes stationary for the space of six hours; afterwards inclining to the *N. W.* for the six following hours; after which, by day it follows the sun, at the rate of $1\frac{1}{2}$ mile an hour, and by night, east, two miles an hour, until the return of day, when it resumes its course with the sun as before, and changes at sunset to the east again.

In the month of *April*, the current in fair weather inclines with the sun at the rate of about half a mile an hour, and at night two-thirds of a mile, until sunrise; but if a *S. E. wind* springs up by day, it runs *S. E.* a mile an hour, until the close of the day; then eastward $1\frac{1}{2}$ mile an hour until sunrise, continuing thus regularly for one day only. But if this weather continue longer than that time, the course of the current will be *N. W.* from sunrise to noon, one mile an hour, and from noon to sunset, *N. N. E.* with the same rapidity; from sunset to near midnight *East*, $1\frac{1}{2}$ mile an hour; at midnight, or 5 o'clock, it sets *E. S. E.*; from 5 to 6, *S. E.*; from 6 to 7, *South*; from 7 to 8, *S. W.*; from 8 to 9, *West*; and then, the sun being up, it will resume its northerly course till mid-day.*

Should a *S. E.* be followed by a *N. W. wind*, the current will set *N. W.* all day, at the rate of two-thirds of a mile an hour, continuing so except for an hour before daybreak, when it will run about a mile to the southward; at sunrise it sets with less rapidity until the sun comes south, when it changes to *S. E.*, until sunset; when it turns east, increasing its velocity to one mile an hour, until within an hour before the break of day, when it resumes its *N. W. course*, continuing in this manner while the *N. W. wind* prevails.

But when a *S. W. wind* succeeds a *S. E.*, the current at all times will run with the wind at the rate of half a mile an hour, as long as the wind remains in that quarter: and whenever it blows from the *North or N. E.*, the stream will run to the *S. E.* by day, $1\frac{1}{2}$ mile an hour, and by night 2 miles: if these winds remain for more than one day, the velocity will increase to 2 hours by day, and $2\frac{1}{2}$ by night, its direction being the same.

In the month of *May* there is no difference from the month of *April*, except that whenever a *N. W. succeeds a S. E. wind*, coming on to blow hard, then the current will run *N. W.* by day, $1\frac{1}{2}$ mile an hour, and by night *East*, with a similar rapidity, continuing this rotation as long as the *N. W. wind* lasts.

In the months of *June, July, August, and September*, in fair weather, before sunrise, the current will set southward, about one-third of a mile an hour, continuing that course until sunset; its direction will then become *East* till daybreak, at 2 miles an hour, and so on while the fair weather continues: but if, after that, a *S. E. wind* springs up, 3 hours after sunrise, the stream will turn *N. W.*, half a mile an hour, until the sun reaches the meridian; then *N.*, about half a mile an hour till an hour after sunset; after which it changes to *N. E.*, two-thirds of a mile an hour until $2\frac{1}{2}$ hours after sunset, and then assumes an east course, at one mile an hour until 3 hours after sunrise, when it again returns to the *N. W.*

Should the fair weather be followed by a *N. W. wind*, then the current will, about 3 hours after sunrise, take a *N. W. course*, at the rate of one-third of a mile per hour, which direction will continue until the sun comes to the *S. S. W.*; it will then turn west, running with the same velocity till half an hour after sunset; it then changes to east one mile an hour, continuing so until midnight, at which time it varies to the *S. E.*, then *South*, and afterwards *S. W.* till 3 hours after sunrise, at the same uniform rate of velocity; and at the period of these 3 hours, it resumes a *N. W. course* again.

* To understand this passage, it is to be recollected that, in many parts of *Italy*, in *Sicily*, and the *Venetian* territory, the day is counted on, from the instant of sunset, to 24 hours the following sunset. Now in the month of *April*, here in question, saying, that in round numbers the sun sets at what we call seven o'clock, the *Italian* day then begins, and 8 o'clock then becomes 1; 9=2; 10=3; 11=4; 12, or midnight, =5; consequently the hours in the text, called five, six, seven, eight, and nine, will correspond with our twelve, one, two, three, and four o'clock in the morning.

Whenever the wind comes from the *N. or N. E.* at sunrise, let the weather be calm or stormy, the current constantly sets to the *S. E.* two-thirds of a mile an hour, and remains so to sunset; after this an *easterly direction* succeeds at $1\frac{1}{2}$ mile per hour, this revolution continuing as long as *these winds blow*; but if at sunrise the wind should shift from *N. or N. E. to N. W.*, remaining so for three successive hours, the stream then changes to a *S. S. W.* course, with a velocity of two-thirds of a mile an hour, and then *S. S. E.* until sunset, when it will run *east* $1\frac{1}{2}$ of a mile an hour until sunrise, continuing in this manner while this wind prevails.

When a *N. or N. E. wind* is succeeded by *gentle gales* from the *S. E.*, the current will at sunrise set *S. E.* for the space of 3 hours, at a rate of two-thirds of a mile an hour, then turns *N. W.* at half a mile an hour, except when the wind chops round to the *S. S. W.*, which will occasion its *course to be North*, continuing it so until half an hour after sunset: it will then run *N. E.* for two hours, with the rapidity before mentioned of half a mile an hour, after which it changes to *East* $1\frac{1}{2}$ mile per hour until midnight, at which time, until daybreak, it runs *S. E.*, about one mile an hour, when it varies to *South*, then *S. W.*, and afterwards *West*; three hours after sunrise it will have taken its former direction to the *N. W.* From the time the current runs *South* to when it becomes *N. W.*, its velocity is regularly half a mile an hour, this change and rapidity continuing while this wind prevails.

During the continuance of cloudy or rainy weather, the current constantly takes a direction opposite to the wind, with a general velocity of half a mile an hour.

When, in moderate weather, the *S. E. wind turns to North or N. E.*, the stream will oppose the wind for the space of 6 hours; and should the *northerly wind* continue longer, it turns during the day *S. E.* half a mile an hour, and by night *East*, two-thirds of a mile an hour.

Should the *S. E. wind suddenly shift to the N. W. or N. N. W.*, then the current will be *N. W.*, at the rate of half a mile an hour for 24 hours; but should this *north-westerly wind* continue longer than 24 hours, then it will set *S. S. W.* in the morning, with the velocity of half a mile an hour, until 3 hours after sunrise; then *N. W.* till midday, and afterwards *West* till sunset, with similar strength; but after sunset it turns *East*, at two-thirds of a mile an hour, continuing so till 3 hours after sunrise, when it assumes the above rotation regularly.

In the month of October the current sets to the eastward from midday to midnight, and to the *S. S. E.* from midnight to midday, with a velocity of 2 miles an hour; this is constantly the case with every wind except the *East, North, and West*, and with these it runs with the wind, having increased its rapidity to 3 miles an hour.

In the months of November and December there is but little variation from the month of October, except that the velocity becomes greater, at the average of about a mile an hour.

The mariner is here reminded that the foregoing monthly description of the currents and weather applies to the *Italian side of the Gulf only*, from *Cape Otranto* to *Punta della Maestra*, or from 40° to 45° of North latitude, and extends to 20 miles' distance from the shore: beyond that, from 20 to 30 miles, or 10 miles further out, it is also subject to the same vicissitudes, with this one exception, that in the directions of *S. W. and N. E.*, the rapidity of the currents will be found to decrease one-third from the foregoing statement, which may be considered as a fixed allowance to be made when at that distance, viz. beyond 20, and between that and 30 miles off.

There will also be a small deviation from the general rules here laid down on the different parts of the coast. For example, from *Cape Otranto* to a little beyond the *Gulf of Manfredonia*, the velocity of the currents will decrease about one-fifth from what has been there stated; and from *Viesta to the River Tronto* they will increase one-fifth; but from thence to *Pesaro* there will be little or no variation.

From *Pesaro to Commacchio* the current is about $1\frac{1}{2}$ mile per hour; but after a few days' rain, it will increase to $1\frac{3}{4}$ per hour *S. E. by E. or E. S. E.*, continuing thus, unless the wind becomes *South, S. W., East, or S. E.* But if, after a *S. E. wind*, a gale should spring up from the *N. E. or North*, the current will be opposite to the wind, running at the rate of two-thirds of a mile an hour; and should the breeze decrease, it will set in the same direction for four hours afterwards, and then resume its *S. E. or E. S. E.* course, as before.

From *Punta della Maestra to Goro*, in 18 fathoms water, the current runs *south-easterly*, 2 miles an hour, and increases, after such rains, to 3 miles an hour, both in-shore and in the offing.

SECTION X.

THE ALBANIAN AND GRECIAN COASTS, FROM CAPE
LINGUETTA TO CAPE ST. ANGELO, WITH
THE IONIAN ISLANDS.

Variation One Point and a Quarter West.

COAST OF ALBANIA. *Cape Linguetta* lies in latitude $40^{\circ} 25' 20''$ N., and longitude $19^{\circ} 14' 40''$ E. The coast runs S. E. (*S. S. E. $\frac{1}{4}$ E.*) for the space of 5 miles, and then South (*S. by W. $\frac{1}{4}$ W.*) to the *Valle dell Orso*, a small but deep cove, having 10 fathoms water within it. Here the land becomes high and steep, rounding nearly S. E. (*S. S. E. $\frac{1}{4}$ E. and S. E. $\frac{1}{4}$ E.*) to the *Strada Bianca*, a distance of nearly 17 miles. This place will readily be known by its forming a *white sandy break* in the mountains, and also by a *white roadway* appearing on the side of a mountain which lies to the S. eastward of it. From hence pursue a S. E. $\frac{1}{4}$ E. (*S. E. $\frac{1}{4}$ S.*) course, and it will carry you to *Port Palermo*. In this track you will pass the *Mountains of Cimara*, inhabited by the Albanian shepherds, whose dwellings are in the natural caves and fissures of the rocks. There is a small cove with deep water about one league before you come to *Port Palermo*, called *Port Varzi*, but little frequented: what commerce there is in these parts, is mostly carried on at *Port Palermo*, this being larger and more important than any other hereabout. Here the *Cimarotes* exchange the produce of their vallies and mountains, consisting chiefly of olives, maize, gall-nuts and timber, for arms, ammunition, and other necessities. The coast from the *Valle dell Orso* to *Palermo* is steep, and without danger, except at the *Point of Strada Bianca*, where there are some rocks; but these are close to the land.

PORT PALERMO. Mr. Malcolm Carmichael, Master of H. M. Ship *Glasgow*, says "*Port Palermo* is a fine and spacious port, its entrance being a mile wide, with a depth of 44 fathoms within it: the shoalest water is on the western side, where you may anchor in from 40 to 17 fathoms." Inland, to the eastward, you will see *Mount Kiapro*, by which this place may easily be recognised.

From the entrance of *Port Palermo*, in latitude $40^{\circ} 2' 58''$ to *Cape Kiephali*, the course is S. E. by S. (*S. by E. $\frac{1}{4}$ E.*), and the distance $9\frac{1}{2}$ miles: the land all the way is high and steep, with numerous ravines, but without any danger. Having rounded the *Promontory of Cape Kiephali*, an E. S. E. (*S. E. $\frac{1}{4}$ E.*) course will take you to *Santa Quaranta*, or the *Village of Forty Saints*: in pursuing this route, you will open the *northern Channel of Corfu*. From *Santa Quaranta* the Albanian coast runs about S. by W. (*S. S. W. $\frac{1}{4}$ W.*) for 8 miles, towards *Butrinto*, which stands on the eastern shore within the *Strait*: this is surrounded with lagoons, within which the fisheries are very productive. "There is a small port," says Mr. Carmichael, "at the northern part of the entrance to the *Channel of Corfu*, called *Trio Scoglio* (the *Tetranisi* of the Admiralty Charts), into which small vessels may run; but it is too narrow for a large ship, although the water is sufficiently deep between the islands that lie before it."

BUTRINTO BAY lies to the southward of *Trio Scoglio*, distant about one league, and is capable of holding five or six vessels of any dimensions; but from the mouth of the river, higher up the bay, on the north side, a shoal runs off the length of a cable; and from the bluff point on the south side, shallow water extends all across the head of the bay, so that large ships will find the best anchorage in the middle of the bay, with 20 fathoms water, the *north Channel of Corfu* barely shut in: here H. M. Ship *Glasgow* anchored several times on good clayey ground.

From *Butrinto* the shore runs about S. by W. (*S. S. W. $\frac{1}{4}$ W.*) to *Cape Stillo*, all high land, and then turns E. S. E. $\frac{1}{4}$ E. (*S. E. by E. $\frac{1}{4}$ E.*) towards *Port Pagagna*, and the *Bay of Saiada*. There are several bays and creeks about here for small vessels to run into, one being a little to the northward of *Cape Stillo*, and others to the eastward: these are *Ports Ftelia*, *Kotario*, and *Pagagna*, the latter being formed behind a peninsula, where you may ride sheltered from the south and west, but open to the N. W.

Having sailed past this peninsula, you will see the *Village of Saiada*, known by a sugar-bowl hill; and hereabout begins an extensive shoal, called the *Bacchante Flat*, which stretches out from the land full 2 miles, and runs along shore to the *Port of Vattuzza*. Vessels must always give this part a sufficient berth, by steering directly south (S. by W. $\frac{1}{2}$ W.) from *Port Pagagna*, for 8 or 9 miles, or until they have passed the little brown *Island of Prasudi*, when they may turn East (E. S. E. $\frac{1}{2}$ E.), which will take them into the *Port of Gomenizza*.

PORT GOMENIZZA. In sailing from *Saiada* towards *Gomenizza*, you will see the *Mountain Mavronoros*, which is somewhat remarkable, being round, and having a brown streak across its southern side, near to the summit; the shores to the S. westward of it are low and marshy: it is here the *River Kalamas*, which rises near to *Joaninna*, falls into the sea. At the entrance of *Port Gomenizza*, on the larboard side, is the brown-looking island before mentioned; you should pass it at the distance of nearly half a mile, and steer East (E. S. E. $\frac{1}{2}$ E.), taking care to give the larboard shore a good berth, for it is all shallow; but near the starboard side the land is steep-to, and you may borrow towards that with safety, having 7 and 11 fathoms water: run along this side until the bay turns S. eastward, when you may anchor in from 10 to 14 fathoms, well-sheltered from all winds. This anchorage is nearly 3 miles deep, and $1\frac{1}{2}$ mile broad: the village is situated to the eastward, a little way inland, and the landing-place is at the further end of the bay. Off the southern point of the entrance to the *Port of Gomenizza* is the small *Islet or Rock of Ajonisi*, between which and the *Point* is no channel for shipping.

S. $\frac{1}{2}$ W. (S. by W. $\frac{1}{2}$ W.) from *Ajonisi Point*, distant 3 miles, are the *Rock and Point of Suruna*; and between them is the entrance to the *Port Platanna*, or *Plataria*, which runs in E. S. E. (S. E. $\frac{1}{2}$ E.) full 3 miles: at the bottom is the sandy beach of *Plataria*. The anchorage here is well sheltered from all but N. W. winds, but the water is deep, and therefore not much frequented. Directly south (S. by W. $\frac{1}{2}$ W.) from *Point Suruna*, distant $2\frac{1}{2}$ miles, is the *Island St. Nicolo*, between which and the shore are two other islands, one of which is named *Sivota*, or the *Black Island*: here there is anchorage in what is called the *Port or Bay of Murto*.

Southward from the entrance of *Gomenizza*, the shores are perfectly clean and steep-to, so far as *St. Nicolo Island*, and you may approach the brown *Island of Prasudi* to the distance of 10 fathoms, and have 5 fathoms water. *St. Nicolo Island* is about three-quarters of a mile long, and narrow; it is high, and visible 20 miles off; both ends are higher than the middle, and its surface is covered with brushwood: the western side is rocky, having a large cavern near the middle. It is in latitude $39^{\circ} 23' 30''$ N., and bears from the *Citadel of Corfu* S. E. (S. S. E. $\frac{1}{2}$ E.), distant 9 miles; from *Cape Bianco* E. N. E. $\frac{1}{2}$ N. (E. N. E. $\frac{1}{2}$ E.) $5\frac{1}{2}$ miles; and from the north end of the *Island Paxo* N. by E. $\frac{1}{2}$ E. (N. N. E. $\frac{1}{2}$ E.), distant $10\frac{1}{2}$ miles. The shores of *St. Nicolo* are steep-to, but there is no passage between it and the main for shipping, although anchorage may be obtained for small vessels a little to the S. eastward, between the inner islets and the Albanian shore. On a little green hill at the head of the small *Port of Murto*, are two white-looking buildings, which serve as a mark for avoiding the shoals off *Cape Bianco*. The above *Ports* are in the district of *Philathi*, and are those from which *Corfu* is principally supplied with wheat, sheep, and oil; which articles are abundant in the neighbouring territory.

THE IONIAN ISLANDS consist of *Corfu*, *Paxo*, *Leucadia* or *Santa Maura*, *Theaki* or *Ithaca*, *Cephalonia*, *Zante*, and *Cerigo*, together with several smaller islands adjacent. Of these *Corfu* and its dependencies, *Merlera*, *Fano*, and *Samotraki*, are the most northerly, and lie opposite to the shores of *Albania*. *Paxo*, *Anti-Paxo*, *Leucadia*, *Ithaca*, *Cephalonia*, and *Zante* follow each other in succession to the southward; but *Cerigo*, *Servi*, and *Cerigotto* are widely detached, being at least 140 miles to the southward of *Zante*, and lying opposite to the most southerly part of the *Morea*. Between *Zante* and *Cerigo* are also the three smaller *Islands of Sapienza*, *Cabrera*, and *Prodano*, which are included within the Government of the United States of the *Ionian Islands*, constituting together one free and independent State, placed under the exclusive protection of Great Britain.

CORFU. This island is the most important of the *Ionian Islands*, and the seat of Government: its form is very irregular, being at its northern part 17 miles wide, and at its southern part only two; while its length, from *Cape Drasti* to *Cape Bianco*, is more than 35 miles. The surface is hilly, with only a few plains interspersed, and the streams which traverse it are very inconsiderable. When you are sailing on its western side, you may see the mountains upon the main land, towering

majestically above the island; and on its southern part, which has a whitish appearance, and therefore named *Cape Bianco*, is placed a *lighthouse*: this, at a distance, has the appearance of a sail. In common with the neighbouring countries, it is much subjected to earthquakes and pestilential diseases; and although the climate is commonly mild, yet it is liable to sudden transitions from heat to cold: hot and scorching winds are sometimes extremely destructive to vegetation; and at certain seasons they are visited by violent rains, accompanied by thunder and lightning; yet the soil in the plains and vallies is very fertile, producing corn, wine, cotton, olives, honey, wax, currants, oranges, lemons, and figs. Fish and salt are extensive articles of exportation; and although the pasturage is scanty, numerous goats and sheep are reared, but horses and cattle are imported from the adjoining continent. The population of the *Island of Corfu*, including the mariners, is estimated at 62,000, who leave few spots of the island uncultivated. The *Island of Corfu* produces upon an average 800,000 jars of oil annually, the qualities being divided into eating oil, kernel oil, and an oil called *Morgu*. Their wines are thin, and have an acid taste, yielding 14,000 barrels annually, being much inferior to those made in *Zante*, *Ithaca*, and *Cephalonia*; and of salt, produced from the salt-works at *Potamos*, *Kastrades*, and *Alefkimo*, they export above 15,000 measures.

THE CITY OF CORFU is situated on the eastern part of the island, and defended by three fortresses. There is a *mole*, where small craft may run into, and ride in 2 or 2½ fathoms. The entrance of the *Port* is particularly pleasing: the imposing appearance of the *batteries*, the two lofty *Citadels* which flank the town, the *Port* gradually extending, and defended by the little *Island of Vido*, now covered with cannon, all announce your approach to some place of considerable consequence. The town is situated within 5 miles of the Albanian coast, and on an eminence; as you enter the *Port*, you will see the *Castello Nuovo*, where the different *magazines*, the *barracks*, and *telegraph* are situated. To the eastward of the town is the *Citadel*, erected upon a rugged rock, and separated from the island by a deep fosse, which admits the sea on both sides: the streets are regular, and churches numerous; while the suburbs around are adorned with gardens, olive-grounds, and vineyards. There is a good road of between 3 and 4 miles to the southward, which leads to the *one-gun battery*: this *battery* overhangs a *strait*, and admits the waters of the sea into a lake called the *Limne*, which is a sad source of malaria to the neighbourhood of *Corfu*, both during the summer and autumn. Nearly in the centre of this *strait* is a rocky islet, commonly called the *Ship of Ulysses*: this has a church upon it, dedicated to *St. Treniti*, now a country residence of the Bishop; and from some ruinous walls still visible, it appears to have been formerly a part of the *Island of Corfu*: indeed the many ruins hereabout plainly point out the site of the ancient *Town of Corcyra*. About the distance of one mile from *Port Royale* is the *Village of Kastrades*, the road between it and *Corfu* forming a promenade. To the right of *Kastrades*, immediately beyond *Fort Abraham*, is a *village* called *Manduchio*; and towards the south of *Manduchio* are the *Suliotte barracks*. Upon the *Citadel of Corfu* there is a *lighthouse*, which will be noticed hereafter: it is situated in latitude 39° 37' 0" N., and longitude 19° 56' 0" E.

PORT GOVINO. W. N. W. $\frac{1}{2}$ W. (*W. by N. $\frac{1}{4}$ W.*) from the *Citadel of Corfu*, distant $4\frac{1}{2}$ miles, is the entrance to *Port Govino*: this is a large and natural basin, where the Venetian galleys used to refit; but the neighbourhood is surrounded by marshy ground, which renders the place very unhealthy: the village is situated on the southern part of the *Port*, and there is an *arsenal* directly opposite to the entrance. This *Port*, whose mouth is encircled by *sandbanks*, rendering it narrow and difficult to approach, can only admit vessels of less burthen than a brig; the best anchorage for such is close to the dockyard, to the southward of which are several sunken vessels. Midway between *Corfu Town* and *Govino* are the *Salinas*, or salt-works; and behind them, a little inland, the *Village of Potamo*, which is the largest in the island, and remarkable, from a church dedicated to *Santa Barbara*. The northern point of the entrance to *Govino* projects considerably out to the seaward, and $1\frac{1}{2}$ mile beyond it is the *Town of Ipsos*: here you will see *Mount Salvador*, 3000 feet high, stretching along toward the north-eastward, and forming a most conspicuous object when coming from the southward.

The western Coast of *Corfu* should always be approached with great caution, because there are several patches of rocky ground about it, some of which extend $1\frac{1}{2}$ mile from the shore. The *Weasel Sloop*, in 1812, is said to have struck on one of these, lying off the centre of the island. About 10 miles W. N. W. (*N. W. $\frac{1}{4}$ W.*) from *Cape*

Bianco are others, called the *Lagudia Rocks*, some of which appear above water. One mile and a half to the northward of these is a *bank* running from the land in a S. S. W. (S. W. $\frac{1}{2}$ S.) direction, with only $2\frac{1}{2}$ and 3 fathoms over it: therefore vessels going on this side should be careful, and give the coast a berth of full 2 miles, by which precaution they will go clear of all dangers whatsoever.

Off the N. W. end of *Corfu* there are several islands, three of which, *Fano*, *Merlera*, and *Samotraki*, lie in a triangular direction, with deep water channels between them.

FANO is the westernmost and largest of these islands, it being $2\frac{1}{2}$ miles long from E. to W., and $2\frac{1}{2}$ broad from N. to S. Its N. W. point lies in latitude $39^{\circ} 52' 15''$ N., and longitude $19^{\circ} 19' 15''$ E. A few rocky islets lie off its N. E. point. At a distance this island appears like a single hill, the summit of which is well clothed with pines; but near the sea it becomes meadow land. From its situation this island becomes politically important; for it commands the best possible view of the entrance to the *Adriatic*, not a sail being able to pass either on the *Otranto* or *Albanian* sides of the channel without being seen from its summit.

MERLERA. This island lies E. by N. (E. $\frac{1}{4}$ S.) from *Fano*, distant 7 miles, and is neither so high nor so large as that island: its soil is said to possess much fertility, but the water becomes shallow as you get near to it; nevertheless, by keeping at the distance of half-a-mile from it, you may anchor, particularly on its eastern side. The centre of this island is in latitude $39^{\circ} 53' 15''$ N., and longitude $19^{\circ} 31' 40''$ E. It is inhabited, and the channel between it and *Fano* is free from any danger.

SAMOTRAKI is a narrow long island, having many rocks and shoals about it. Its N. W. point is in latitude $36^{\circ} 46' 30''$ N., longitude $19^{\circ} 27' 0''$ E., and bears from *Fano South Point* S. E. by E. (S. E. $\frac{1}{4}$ S.), distant $5\frac{1}{2}$ miles, and from the *South Point of Merlera* S. W. by S. (S. W. $\frac{1}{4}$ W.), $6\frac{1}{2}$ miles. The rocks on its south and S. western points extend full $1\frac{1}{2}$ mile out; and there are two other rocky shoals off its west and N. western sides; therefore you will be careful not to go too near it in passing, but always give it a berth of full 2 miles. East (E. S. E. $\frac{1}{4}$ E.) from *Samotraki*, distant 3 miles, are the *Diaplo Isles*, lying nearly equidistant between *Samotraki* and *Corfu*. W. S. W. (W. $\frac{1}{4}$ S.) of *Diaplo Islands*, distant three-quarters of a mile, are the *Ship Rocks*; and S. S. E. (S. $\frac{1}{4}$ E.) from them, about a similar distance, is another little rock above water: these render the passage between *Samotraki* and *Diaplo* hazardous, especially to strangers; but the channel between *Diaplo* and *Corfu* is clear, and may be run through with safety: the land of *Corfu* is high, and may be approached to the distance of half-a-mile, within which it shallows; but keep mid-channel, and there will be no danger.

S. E. by S. (S. S. E. $\frac{1}{4}$ S.) from the *Diaplo Islands*, distant 3 miles, is a little narrow and long island, named *Kravia*, from the northern end of which a reef runs out almost so far as the shores of *Corfu*, leaving only a narrow passage between, with 4 fathoms water; and nearly on a similar direction from *Kravia*, distant one mile and a third, is a small cove, formed by a rocky promontory, and called *Port Timone*. This narrow neck of land is from 300 to 400 feet high, and stretches to the southward: on its interior is the *Village Aphiona*, the only cultivated part hereabouts belonging to the inhabitants of this place, who rear some vines and olive-trees; but even this, from their exposure to the westerly winds, is effected with considerable difficulty, and the inhabitants have to look for support chiefly from the produce of the interior of the country. The remains of a watch-tower and guard-house are the only vestiges of habitation observable on this promontory, although this place is well calculated for a look-out situation towards the shores of *Italy*. The isthmus forms two bays, on the east and the west; but both are open to a heavy sea, and neither can afford protection to shipping. That on the east is called *St. Giorgio*, and is both wide and deep, defended on the land-side by a range of lofty mountains which stretch down to *Cape St. Angelo*, where the coast winds round East (E. S. E. $\frac{1}{4}$ E.) to the *Bay of Uliapades*: some small rocks are scattered about, but these are close in to the land, and always above water, the shore being steep throughout. Within this bay stands the *Village Lakonas*; but there is no shelter for vessels here, nor on any part of the western Coast of *Corfu*.

Directions for making the Northern Channel of *Corfu*. Vessels coming from the south-westward, with the wind to the northward of west, should endeavour to make for the *Island of Fano*, and pass to the northward of both *Fano* and *Merlera*; then steer E. S. E. or S. E. by E. for the entrance of the Channel. Or they may pass to the southward of *Fano*, giving *Samotraki* a wide berth, and go either between *Fano* and

Merlera; or being in a line with the northern point of *Samotraki*, and the north-eastern point of *Fano*, about midway, steer E. $\frac{1}{2}$ N. (E. $\frac{1}{2}$ S.) to the southward of *Merlera*, between that island and the northern part of *Corfu*; the channel being perfectly clear, the rocks and shoals about *Samotraki*, already described, excepted.

Cape Drasti is the N. W. Point of *Corfu*, and lies in latitude $39^{\circ} 48' 15''$ N., and longitude $19^{\circ} 38' 0''$ E. Being abreast of *Cape Drasti*, your course to *Point St. Catharine*, which is the northern Point of *Corfu*, will be E. by N. (E. $\frac{1}{4}$ S.), $9\frac{1}{2}$ miles; and from *Point St. Catherine* to the northern entrance of *Corfu*, E. S. E. (S. E. $\frac{1}{4}$ E.) $6\frac{1}{2}$ miles; but in rounding the Point, the shore must have a berth, on account of a shoal bank that surrounds the *Utigol Rock*, which lies a mile within the Point: proceed at a mile distance from the shore, and there is no other danger. *Tignosa Rock* has now a lighthouse erected upon it. If in hard gales, you cannot reach the entrance of *Corfu*, you may anchor to the eastward of *St. Catharine's Point*, near the land: here the ground will be good, and you will be sheltered by the high lands of *Corfu* until the wind becomes more moderate, when you may proceed for the Road of *Corfu*; or you may ride under the *Island Merlera* in from 16 to 20 fathoms, adapting your situation to the prevailing wind.

The following are the official Instructions for navigating the Channels of Corfu, as issued April 1st, 1825.

“The Ionian Government, desirous of affording every possible security and facility to vessels navigating the channels leading to *Corfu*, has caused to be erected four light-houses, which are constantly lighted every night from sunset to sunrise.

“The first is on the old Citadel of *Corfu*; it is a single light, 240 feet high, and can be seen from the entrance of the North Channel, and from some distance to the southward of *Point Alefkimo*, in the South Channel: it is particularly useful to guide ships to the Harbour of *Corfu*.

“The second is a floating light, moored off *Point Alefkimo*, in the South Channel. The vessel lies in 5 fathoms water, one cable's length N. W. by W. $\frac{1}{2}$ W. (N. W. $\frac{1}{4}$ W.) from the N. E. point of *Alefkimo Shoal*, and bears from the windmill to the southward of *Point Alefkimo*, N. by W. $\frac{1}{2}$ W. (N. $\frac{1}{4}$ W.); from the S. E. extremity of the *Island of Corfu* N. N. W. $\frac{1}{4}$ W. (N. by W.); from *Black or Sivota Island* N. 62° W. (N. W. $\frac{1}{4}$ W.), distant 8 miles; and from *Corfu Lighthouse* S. $35\frac{1}{2}^{\circ}$ E. (S. S. E.), $10\frac{1}{2}$ miles.

“The third is also a single light at the east side of the *Island of Paxo*, erected upon a small island at the entrance of *Port Gazo*. The light is upon a tower, which bears from the south end of *Madonna or Paxo Shoal* W. 50° S. (W. $\frac{1}{4}$ N.), and from the north end of the said shoal W. 11° S. (W. $\frac{1}{4}$ N.). The centre of the shoal is $1\frac{1}{2}$ mile distant from the light, and the S. E. Point of *Corfu* bears from it N. by W. $\frac{1}{4}$ W. (N. $\frac{1}{2}$ W.); the S. E. extremity of *Anti-Paxo* S. E. $\frac{1}{4}$ E. (S. E. $\frac{1}{2}$ S.); *Black Island* North, a little easterly (N. by E. $\frac{1}{2}$ E.), and the N. E. end of *Paxo* N. W., a little westerly (N. W. by N.). This light is particularly useful to the small coasting vessels running for *Port Gazo*, commonly called *Paxo Harbour*, in bad weather; and also to all vessels passing through the South Channel.

“The fourth is a single light, placed upon the *Rock Tignoso*, in the entrance of the North Channel. It is a most valuable light to vessels passing through this channel, to guide them clear of the *Barchetta*, or *Boat*, and *Serpa Rocks*. The N. E. Point of *Corfu Island* bears from it S. $\frac{1}{2}$ W. nearly (S. by W. $\frac{3}{4}$ W. nearly), *Corfu Light* shut in behind this Point; the *Serpa Rock* bears from it South (S. by W. $\frac{1}{2}$ W.); S. W. Point of the *Albanian Coast* S. by E. (S. $\frac{1}{4}$ W.), *Boat Rock*, East (E. S. E. $\frac{1}{4}$ E.), nearly half-a-mile distant, with 16 and 20 fathoms between them; S. W. extremity of the land about *Cape Linguetta* N. W. $\frac{1}{4}$ N. (N. N. W. $\frac{1}{4}$ W.), and the North Point of the *Island Merlera* W. by N. $\frac{1}{2}$ N. (N. W. by W.), just open to the northward of the North Point of *Corfu*.”

Directions for the North Channel by Night. “In coming for this channel, when you would make out the Light, steer straight for it; and it is recommended that all ships, with a leading wind, should pass between the Light and the *Island Corfu*, to avoid the *Boat Rock*, which is not larger, above water, than a small boat, bottom upwards, and has a shelving reef stretching off from it N. W. $\frac{1}{4}$ N. (N. N. W. $\frac{1}{4}$ W.) about 120 fathoms, with from 2 to 7 fathoms water upon it. This channel between the Light and *Corfu* is six-tenths of a mile broad, with 30 fathoms water in the middle, and steep-to on both sides. After passing the Light, steer S. E. by E. or E. S. E. (S. E. $\frac{1}{4}$ S. or S. E. $\frac{1}{2}$ E.); bring the Light to bear N. W. $\frac{1}{4}$ N. (N. N. W. $\frac{1}{4}$ W.),

and keeping it on that bearing, will lead you clear of the *Serpa Rock*, which lies just to the southward of the *N. E. Point of Corfu*. This is a dangerous shoal by night, it being nearly level with the water, and so steep-to, that the lead is of no use. When you get sight of *Corfu Light*, bring it to bear S. by W. (*S. S. W. $\frac{1}{2}$ W.*), and by keeping it so, it will lead you clear of all danger, and right up to the east end of the *Island of Vido*; pass one-quarter of a mile to the eastward of that island, then steer in, and anchor any where between the *Island* and the *Town of Corfu*. A fleet of ships may anchor in this *Road*, the best ground for which is, with first-rate vessels, between the *Town* and the *Island Vido*; but those of less burthen may anchor below the *Town* and *Port Spilia*, while smaller craft can ride at *Mandrachio*, the foot of the smaller *Citadel*, passing between the *rocks* which surround the *road*. Care must be taken to guard against the current, which runs very strong.

"Ships passing through the *North Channel*, with a variable or beating wind, will find it better to pass to the northward of the *Light*; and then it must not be brought to the westward of S. W. by W. $\frac{1}{2}$ W. (*W. S. W. $\frac{1}{2}$ W.*), until you are a good mile to the eastward of it (to avoid the *Barchetta* or *Boat Rock*), or until *Corfu Light* bears S. by W. (*S. S. W. $\frac{1}{2}$ W.*): when the *North Channel Light* bears W. a little southerly (*nearly W. by N.*), it is on with the *Boat Rock*; and when the *Light* bears W. $\frac{1}{2}$ N. (*W. $\frac{1}{2}$ S.*), you are well to the southward of the *Boat Rock*. In beating through this channel, keep on the *Albanian shore*, it being all bold; and stand very little more than half-channel over to the westward, until you are well to the southward of the *Serpa Rock*.

"Vessels going to the northward, will have no difficulty in observing these directions in a contrary order."

Directions for navigating the South Channel. "In coming from the southward of *Pazo*, for the *South Channel*, with southerly or south-westerly winds, you may pass between *Pazo Shoal and Light*, or to the eastward of the *Shoal*, at pleasure. To pass between the *Shoal and Light*, give *Anti-Pazo* a good berth, and so soon as you open the *Light*, bring it to bear N. W. or N. W. $\frac{1}{2}$ W. (*N. N. W. $\frac{1}{2}$ W.* or *N. W. $\frac{1}{2}$ N.*); then steer for it, and keeping it on either of these bearings, will lead you to the westward of the *Shoal*; pass half-a-mile to the eastward of the *Light*, and when it bears W. by S. $\frac{1}{2}$ S. (*W. $\frac{1}{2}$ S.*), you are to the northward of the *Shoal*, and may keep away N. by W. $\frac{1}{2}$ W. (*N. $\frac{1}{2}$ W.*), or N. by W. (*N. $\frac{1}{2}$ E.*). When *Pazo Light* bears S. $\frac{1}{2}$ E. (*S. $\frac{1}{2}$ W.*), keep it on that bearing, and it will lead you well to the eastward of the *buoy* placed upon the S. W. extremity of *Cape Bianco Shoal*. When the *Cape* bears W. S. W. $\frac{1}{2}$ W. (*W. $\frac{1}{2}$ S.*), or *Black Island* N. E. by E. (*E. N. E. $\frac{1}{2}$ E.*), you will then be to the northward of the *buoy*, and may steer N. W. or N. W. by N. (*N. N. W. $\frac{1}{2}$ W.* or *N. by W. $\frac{1}{2}$ W.*), according to the wind. You will then very soon get sight of *Alefkimo Light*, which must not be brought to the northward of N. W. $\frac{1}{2}$ W. (*N. W. $\frac{1}{2}$ N.*). To keep you clear of *Alefkimo Shoal*, which is a continuation of the one off *Cape Bianco*, and runs along the east side of *Corfu*, so far as the *Light-vessel*, pass half-a-mile to the eastward of the *Light*, and generally by this time you will see *Corfu Light*; bring that to bear N. W. $\frac{1}{2}$ N. or N. W. $\frac{1}{2}$ N. (*N. N. W. $\frac{1}{2}$ W.* or *N. N. W. $\frac{1}{2}$ W.*), and then steer for it: pass half-a-mile to the eastward of it, to clear *Old Citadel Point*, then steer in, and anchor as before directed.

"Ships coming from the westward for the *South Channel*, between the *Island of Pazo* and *Cape Bianco*, should keep in mid-channel, or nearer to the former than the latter: steer in N. E. $\frac{1}{2}$ N. or N. E. $\frac{1}{2}$ E. (*N. E. $\frac{1}{2}$ E.* or *N. E. by E. $\frac{1}{2}$ E.*), and, after opening *Pazo Light*, continue on the same course until the *Light* bears S. $\frac{1}{2}$ E. (*S. $\frac{1}{2}$ W.*); then proceed as above. In coming from the southward, it will be most advisable to pass to the eastward of the *Pazo* or *Madonna Shoal*, then to keep in mid-channel, or rather with the *Albanian coast* on board, it being all bold, and may be approached within half-a-mile. When *Pazo Light* bears W. S. W. $\frac{1}{2}$ W. (*W. $\frac{1}{2}$ S.*), you will be to the northward of the *Shoal*. When working through the *South Channel*, while well to the southward of *Alefkimo Light*, you may stand to the westward until the *Light* bears N. W. (*N. N. W. $\frac{1}{2}$ W.*); but when within a mile of it, it must not be brought to the northward of N. W. by W. $\frac{1}{2}$ W. (*N. W. $\frac{1}{2}$ W.*), to avoid the N. E. elbow of the *Shoal*. The *Albanian coast* is all clear and bold to the southward of the *Light-vessel*; but after getting abreast of her, you must not stand within 2 miles of it, to keep clear of the *Bucchante Shoal* or *Bank*. The *Corfu side* is then all clear, and you may stand well over toward it."

THE ISLAND OF PAZO. This island is about $4\frac{1}{2}$ miles long, from N. W. to S. E. (*N. N. W. $\frac{1}{2}$ W.* and *S. S. E. $\frac{1}{2}$ E.*), and $1\frac{1}{2}$ mile broad, forming one entire

mountain, which is covered with olive-trees. The little *Port of Gayo* is on the eastern side, and affords good anchorage for a number of small vessels; but there is an inner harbour formed by an island, almost in contact with the other, having on it a circular battery, commanding the harbour's entrance as well as the town; the latter consists only of an irregularly scattered cluster of houses. The *Light-tower* stands on the *Isle of Madonna*, by which the anchorage is sheltered, being in latitude $39^{\circ} 11' 30''$ N., and in longitude $20^{\circ} 12' 20''$ E. The *Town of Paxo* is a small and very poor place, where only a few sheep, goats, or fowls may be procured; for although the island contains an extent, including *Anti-Paxo*, of 35 square miles, it has only a population of 4 or 5000, and these are principally Greeks: two-thirds are employed in cultivating the land, the remainder are mariners. The island is hilly, and the soil stony, so that its productions are little more than a few olives, almonds, and vines; the corn it produces is quite insignificant, but the fisheries might be productive of the greatest advantage, if prosecuted with proper activity: at present there are about 100 boats belonging to this place. The western shores have a whitish appearance, and are clear from any danger; but on the northern side there are some rocks, one of which, near the land, is from 30 to 40 feet high; to the N. W. (*W. N. W. & W.*) of which, about a quarter of a mile, is a *sunken rock*, upon which H. M. S. *Christiana* struck in 1819. On the eastern side of the island there are the small *Ports of Laka, Longona, Gaya* (already noticed), and *Kalkonisi*, fit only for small craft: opposite the entrance of *Longona* there is a small shoal, and from its southern point a narrow reef runs out.

The *Madonna, or Paxo Shoal* lies E. $\frac{1}{2}$ N. (*E. & S.*), distant $1\frac{1}{2}$ mile from the entrance of the *Port of Gayo*, and is nearly dry: it is about one mile in extent, in a direction parallel with the island; and on its outer edges there are from 6 to 3 fathoms, the channel on each side being very deep. The marks to clear this shoal are the west end of *Mount Salvador* open of the S. east end of *Cape Bianco*; or, when coming from the southward, the largest of the rocks lying off the S. E. end of *Anti-Paxo*, kept open of the eastern side of that island; this will carry you to the eastward of the danger: the windmill on the summit of the highest part of *Paxo* kept on with the fort, will carry you clear on its southern side, and the same windmill well open to the northward of *Madonna Lighthouse* will carry you safe on its northern side.

ANTI-PAXO is a small and uncultivated island, divided from *Paxo* by a channel more than a mile broad, with a great depth of water, and both sides of the passage bold-to: its S. E. end is in latitude $39^{\circ} 8' 30''$ N., and longitude $20^{\circ} 15' 45''$ E. It is about 2 miles in length, and half-a-mile in breadth, lying E. S. E. and W. N. W. (*S. E. & E. and N. W. & W.*). The south part of the island is low, but it rises up to a considerable height towards the north. The shores are clear, except towards the south point, from whence a range of high rocks, called *Vascaglia*, extends South (*S. by W. & W.*), full three-quarters of a mile, terminating in a reef called *Plakka*, near which you will have from 10 to 5 fathoms water: this part therefore is dangerous, more especially in the night, and should always have a good berth in passing.

THE COAST OF ALBANIA. From the *Island of St. Nicolo*, (described in page 185), the coast runs S. E. $\frac{1}{2}$ S. (*S. S. E. & E.*) for 6 miles to *Cape Formaggio*, whence it turns more easterly to *Port Sosti*: this is a little cove, fit only for galleys, and quite open to the S. E. From *Port Sosti* an E. S. E. (*S. E. & E.*) course for 2 miles will carry you to *Parga*. In the passage from *St. Nicolo* to *Parga* the land is all high, a few small sandy coves excepted; and there is no danger but what is visible. The shores are commonly steep-to, and at the distance of half-a-mile from the land there are from 20 to 36 fathoms.

PARGA. This town is small, and lies in latitude $39^{\circ} 16' 30''$ N., and longitude $20^{\circ} 23' 25''$ E. It is built on a conical rock, about 250 feet above the level of the sea, which, on three sides, washes its base; and backed by a precipitous cliff, having on its summit an almost impregnable citadel: the town is surrounded with walls, and is situated between two bays, or rather coves, which afford convenient landing-places: here runs the ancient *River Acheron*. "This town," says a modern traveller, "consists of houses scattered in all directions, without regularity, commencing from the ravine close to the sea-beach, and terminating at the castle-gates. The greater part of the houses are surrounded by walls, having a garden annexed, giving them the appearance of country residences. Between the fortress and town is a broadway, termed an Esplanade. Every habitation is a fortified position of itself, being perforated on all sides with loop-holes, from which the inhabitants could fire upon those without. The general access is by a flight of steps, leading down to

what may be termed the cellar, from whence the ascent into the first floor is facilitated by a trap-door; and this serves as an additional security against the forcible attempts of an enemy." The prospect from the *Citadel* is magnificent; and the surrounding country very fertile. The former territory of *Parga*, backed by the steep mountains of *Aja*, extended 2 or 3 miles round, and *Parga* had a population of 4 or 5000, being considered as a dependency of the *Ionian Islands*, and a military post of considerable importance: but, in 1819, it was ceded to the Ottoman Empire, and the majority of its inhabitants took refuge in the *Island of Corfu*, who are now reduced to 3000. The employment of the original, as well as the present inhabitants is agriculture and navigation; three-fifths are devoted to the former, and the remainder are mariners and fishermen. The air is salubrious and pure: the vallies in the vicinity of the town are filled with citrons, oranges, and cedrats; and scattered over the country are forests of olive, oak, cypress, and plane trees; besides which, vines, fruits, tobacco, and flax were in common cultivation, and the natives imported these productions in great abundance, oil, oranges, citrons, and particularly cedrats, forming articles of a lucrative commerce; but there are no manufactures, and the natives are both indolent and treacherous, preferring a life of piracy to cultivating their luxuriant soil, or embarking in trade of any kind. Their shops are few in number, and their principal support is derived from the sale of powder, shot, and other articles of warfare; to which are added small assortments of knives, belts, pouches, and some few domestic articles.

From *Parga* the coast runs nearly East (*E. S. E. & E.*) for about 5 miles, to the little Port of *St. Giovanni*, within which are from 18 to 6 fathoms: this was the ancient *Acherusia*, but is now a place of little note: the anchorage is quite open to the S. W. winds. Two miles South (*S. S. W. & S.*) from *St. Giovanni*, and E. S. E. $\frac{3}{4}$ S. (*S. E. & E.*), distant $\frac{5}{4}$ miles from *Parga*, is the Port of *Fanari*, or *Phanaridim Glykis Limen*, which Mr. Carmichael describes thus:—"The Port of *Fanari* is an excellent port of its size, and easy of access; its entrance bears E. $\frac{1}{4}$ N. (*E. $\frac{1}{4}$ S.*) from the *Madonna Church* in *Pazo*. The south side of its entrance appears from the offing in the shape of a gunner's quoin, with the higher end to the northward: run for the north end of it, and when you are through the entrance, anchor at a cable's length from the north shore, in from 5 to 7 fathoms water. Run what you intend to moor with, to the shore on the north side, where you will find the rocks apparently cut on purpose to fasten to; and here you will ride land-locked. On the south and east sides is shallow water, and fit only for small vessels. The rocks to the northward of the entrance have 5 and 6 fathoms close to them, and there are 7 and 8 fathoms in the narrows at the entrance of the harbour. Water is plentiful, and easily obtained from the *River Acheron*, which runs into the southern part of the Port, up which a boat can go a very considerable distance. From hence a direct south (*S. by W. & W.*) course for 2 miles will carry you to the Point and Port of *Amouna*, fit only for small craft. S. E. $\frac{3}{4}$ S. (*S. S. E. & E.*), distant 9 miles, is the Point of *Mitika*, behind which, a little inland, is the Town of *Kastrosikia*: the coast in all this extent from *St. Giovanni* is bold-to, with only the exception of the projecting points, off which some few rocks protrude; but these lie close inland, and render a small berth necessary in passing them. Off the Point of *Papalaka* are several rocks and rocky reefs, the outermost of which are called the *Ittisa Reefs*; these lie out one full mile from the land, and are very dangerous, but easily to be avoided, by only keeping at a greater distance in passing. S. S. E. $\frac{1}{4}$ E. (*S. by E.*) from Point *Papalaka*, distant 2 leagues, are the Point and Village of *Mitika*, the coast between forming the sandy Bay of *Gomaros*, where you may anchor in from 6 to 15 fathoms, but quite open to, and unsheltered from the S. westerly winds. The Town of *Mitika* stands on a point of land, from which, about W. by S. (*W. & N.*), distant 2 miles, are the *Petalka Rocks*, and Shoal extending a mile out in the above direction, and having 3 and 2 fathoms over its eastern parts; but near its western edge the water is much less, and consequently it is exceedingly dangerous. There is a channel between it and Point *Mitika* with 6 fathoms water in it: you will go through it with safety by keeping within a mile of the shore; but the safest way is to keep 4 or 5 miles off, and pass on its western side.

S. S. E. (*S. & E.*) from *Mitika*, distant 4 miles, the land turns round towards the entrance to *Previsa* and the Gulf of *Arta*: the shore all the way is encumbered with rocks, both above and under water; but these lie near the land, and therefore are no way dangerous.

PREVISA. The Town of *Previsa* is situated about a mile within the Gulf of

Arta, and the new *fortress* at its south end is in latitude $38^{\circ} 56' 10''$ N., and longitude $20^{\circ} 44' 0''$ E. The town lies along the shore, having a fine plain to the northward, studded with houses, and interspersed with plantations of olives: to the westward the land rises, and renders the shore difficult of access. The population is about 8000, who carry on a traffic in wood, oil, and fruit; but since its capture by Ali Pacha in 1798, it has much declined, and is no longer the emporium of the trade of *Epirus*. Mr. Turner, in 1813, visited *Previsa*, and found it to consist of a collection of miserable houses, occupied chiefly by the soldiers of Ali, although there appeared to be some intention to restore its fallen consequence by the new fortifications then being erected. The town, lying on the shores of the bay, is obscured by the Pacha's palace, which is a handsome building on the left side, while to the right is a battery. The Bay is divided by a neck or isthmus of land, which reaches half the way across: on the other side of this land is the Bay of *Actium*, and beyond it are very high mountains. About 4 miles to the northward of the town are the ruins of the ancient *Nicopolis*, which has principally furnished the materials with which the houses of the present town are built: the road between them is still in good condition; but the plains of *Arta*, which lie to the north-eastward of *Previsa*, diffuse their unwholesome air, and the inhabitants are constantly subjected to fevers and agues; so that, during summer, the residents at *Previsa* always close their windows after sunset. There is a bar across the entrance of the Gulf of *Arta*, which is shoal on each side, and has in mid-channel only $2\frac{1}{2}$ and 3 fathoms: this circumstance considerably deteriorates the value and importance of this place as a harbour.

Anchorage. Between one and two miles off the entrance to the Gulf of *Arta* there is anchorage, with off-shore winds, in from 18 to 10 fathoms water, hard sand. The *Ganymede*, in 1818, anchored here in $17\frac{1}{2}$ fathoms, having the *Fort*, on the northern side of the entrance, bearing E. N. E. $\frac{1}{4}$ N. (*E. by N.*), and the *Fort of St. Maura* S. by E. (*S. $\frac{1}{4}$ W.*), about $2\frac{1}{2}$ miles from the shore: here she rode out a gale from the E. S. E. and S. E. There was a current perceived, which commonly set out of the Gulf at the rate of $1\frac{1}{2}$ knot an hour. H. M. S. *Glasgow* also anchored here in 20 fathoms, having *Cape St. Nicholas* bearing N. W. $\frac{1}{2}$ W. (*N. W. $\frac{1}{4}$ N.*), the *Castle of St. Maura* S. $\frac{1}{4}$ W. (*S. by W.*), the west side of the *Island of St. Maura* S. W. by S. (*S. W. $\frac{1}{4}$ W.*), and *Fort Previsa* E. $\frac{1}{4}$ N. (*E. $\frac{1}{4}$ S.*); but these anchorages are quite exposed to all winds from the N. W. round by West to S. S. W.

The entrance to the Gulf of *Arta* is defended by two forts on the north, and one on the south side; they are situated very low, and but little above the level of the sea; but the shallowness of the water will effectually prevent any but light vessels entering. Having entered, and passed the *Promontory of Actium*, the Gulf opens, and forms a basin running in to the southward, on the shores of which is the *Village of Azio*; you will then pass the inner strait, and enter a spacious Gulf, which runs in easterly full 6 leagues, within which the water is deep, and the bottom mud. On the northern shore of this Gulf is the *River Arta*, on the banks of which, about 9 miles inland, is situated the *Town of Arta*, having a population of 6 or 7000, and carrying on a very considerable traffic in cattle, wine, tobacco, flax, cotton, pulse, furs, leather, &c.: they also manufacture coarse and woollen cloths. There are several islands within the Gulf, and there are also said to be many rocks; but its navigation is not at present well understood.

LEUCADIA, or SANTA MAURA. This is one of the *Ionian Islands*, and was formerly joined to the main land of *Greece*; but is now separated by a narrow and shallow channel, through which only boats can pass. Its northern part, where stands the *Castle of Santa Maura*, bears from *Previsa* S. by W. $\frac{1}{4}$ W. (*S. S. W. $\frac{1}{4}$ W.*), distant $6\frac{1}{2}$ miles, and is in latitude $38^{\circ} 50' 10''$ N., and longitude $12^{\circ} 43' 15''$ E. From thence it extends S. S. W. $\frac{1}{4}$ W. (*S. W. $\frac{1}{4}$ S.*) to *Cape Ducato*, the S. western point, in latitude $38^{\circ} 33' 30''$ N., and longitude $20^{\circ} 32' 45''$ E., being about 18 miles long, and $6\frac{1}{2}$ broad. Its surface is extremely mountainous and rugged, particularly towards the centre of the island, being composed of heathy mountains, separated by fertile vallies, producing vines, olives, citrons, pomegranates, almonds, and some corn and pasturage. Game is plentiful, and there are large numbers of sheep and goats; but the staple commodity of the island is bay-salt, of which article not less than 8000 tons are annually exported. Honey, wax, olives, oil, and wine are also among their commercial productions, and bees form an important object of rural economy. The natives are principally of Greek extraction, and are computed at 22,000; these are employed in the various branches of agriculture: great numbers cross over to the continent during the harvest in quest of employment; and a large portion are engaged in navigation and

the fisheries. There are several good ports about the island, and some towns, but none of any consequence except the capital.

Amaziki, or *Santa Maura*, is the capital of the island, and situated at the N. eastern part, on a narrow slip of land almost surrounded by the sea; it is enclosed with walls and towers, and defended by the *Castle of Santa Maura*, which is about a mile and a half to the north-eastward, a strong and well-built fortification. Between the *Castle* and *Town* are a *road* and *bridge*, which, as well as an accompanying aqueduct, is raised on 365 arches; it is about 5 feet above the water, and so narrow, that two persons cannot walk upon it abreast: in windy weather you will run the risk of being blown into the sea by venturing to cross it. The channel which separates *Santa Maura* from *Albania* is usually crossed in canoes; but during certain seasons of the year, the inhabitants wade across it. When the weather is mild, the wind commonly blows in an easterly direction, from sunrise until past noon; it will then shift, and blow from the west.

The modern town stands on an unhealthy part of the island, and is ill-built and dirty; the houses being mostly of wood, and seldom above one story high. Adjacent are several salt-pits, separated from the sea by sluices, which admit the sea-water into a shallow preserve, where the heat of the sun suffices to effect the crystallization. The shores hereabout are all low, and abound with fish of various kind; while the lagoons produce eels of prodigious dimensions. There is a beautiful road running to the southward, to the ancient *Leucas*, or *Leucadia*, where stood a Temple of Apollo, the ruins of which are visible on an eminence about 3 miles distant: the hill is covered with vineyards, having at its base a copious fountain. There is a hill which commands the *Town of Santa Maura*, near which is a convent; and the shoals here are so shallow and extensive, that no boat, drawing much water, can come within half-a-mile of the town.

In following the western *Coast of Leucadia*, you will have deep water within a small space from the island, and no danger until you reach the *Rock Sesola*, in latitude $38^{\circ} 42' 0''$ N.: this lies about a mile from the land, and the channel between has from 30 to 36 fathoms, but there is good anchorage near the inner part of the rock in 13 or 14 fathoms. About 2 miles to the southward of this rock begins a long ridge of limestone rocks, which extends all the way to *Cape Ducato*, and usually bears the name of the *Leucadian Promontory*. This, when seen from seaward, has a white appearance; and the particles of mica which the internal torrents occasionally deposit, have given the title of the *Silver Mountain* to one of these elevations: but the most remarkable is a huge projecting and overhanging rock, about 2 miles to the northward of *Cape Ducato*, called *Sappho's Leap*; this being a tremendous stony precipice, 200 feet high, with numerous pointed rocks projecting from the sea below.

Having reached the *Point of Cape Ducato*, you will open the wide and extensive *Bay of Vasiliki*, which runs in N. by E. (*N. N. E. $\frac{1}{2}$ E.*) 5 miles: at its farther end is a sandy beach with a rivulet of water, on the eastern side of which are some ruins. The water within the centre of this Bay is deep, but shallows to 7 fathoms near the upper end: here you may anchor, but will be exposed to all winds from the southward. *Point Lypso Pyrgo* is the S. eastern point of the *Bay of Vasiliki*, and bears E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ N.*) from *Cape Ducato*, distant $5\frac{1}{2}$ miles.

PORT DEPANO. Having entered the *Ducato Passage*, commonly called the *Santa Maura Channel*, you will meet with several islands, which form the entrances to *Port Depano*. Of these islands the first is *Arkudi*, lying E. $\frac{1}{2}$ S. (*E. S. E. $\frac{1}{2}$ E.*), distant $\frac{1}{2}$ miles from *Cape Ducato*. This island is nearly 2 miles long from N. to S. (*N. by E. $\frac{1}{2}$ E.* and *S. by W. $\frac{1}{2}$ W.*), being somewhat cultivated, and affording pasturage for numerous sheep and goats, with huts for the attending shepherds; it is steep to all round, and without any hidden danger. From the northern part, of *Arkudi* to the southern point of *Meganisi*, the course and distance are E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ N.*), $\frac{1}{2}$ miles. *Meganisi* is an irregularly shaped island, narrow to the southward, but broad towards its northern part, its length being about 5 miles: off its southern point is the small *Island of Kathro*, with a narrow passage between. W. $\frac{1}{2}$ N. (*W. N. W. $\frac{1}{2}$ W.*) from *Kathro* is the *Petalis Rock* above water, but with 9 and 5 fathoms close to it; while between it, and close to *Meganisi Island*, are 100 and 120 fathoms. On the east (*E. S. E. $\frac{1}{2}$ E.*) of *Kathro*, distant one league, is the S. W. *Point of Kalamo Island*, which extends in a circular direction to the north-eastward $5\frac{1}{2}$ miles. To the south-eastward of *Kalamo* is *Kastus Island*, 4 miles in length, but narrow. *Kalamo* is inhabited, and slightly cultivated with vines and olives, but its pasturage is indifferent.

there is some fresh water to be obtained, and also a little harbour on its S. eastern side, called *Geroglimione*, where you will have good shelter. *Kastus* also is inhabited and cultivated, having pasturage, olives, and fresh water. About midway between *Kastus* and *Meganisi* is a dangerous rock, with 3 fathoms water upon it, and near it is the *Formica Island*: there is deep water around both, and near the *three-fathoms rock* are 60 fathoms; while to the S. eastward of it are 80, 91, and 109 fathoms. The passages frequented by vessels going to *Port Depano*, are commonly between *Meganisi* and *Kalamo*, and between *Meganisi* and *Santa Maura*: with the exception of the above-mentioned *three-fathoms rock*, there is no danger in passing between *Meganisi* and *Kalamo*; and this may easily be avoided by steering near to the former island, where you will have a depth of from 60 to 90 fathoms. Vessels having cleared the northern part of *Meganisi*, will discover a large white Fort on the *Albanian shore*; and having brought it to bear N. N. W. $\frac{3}{4}$ W. (*N. by W. $\frac{3}{4}$ W.*) may, with a leading wind, steer right towards it, which will lead right up to the anchorage of *Port Depano*. In working through this channel, you may stand from side to side, as close as you please, for both shores are steep-to, and without any danger. But between *Meganisi* and *Santa Maura* the channel is narrow and difficult; in some parts it is not above half-a-mile wide, high on both sides, subject to calms and variable winds, and by no means to be recommended without a leading wind. The only dangers within it are some rocks above water, to the northward of *Meganisi*, and between *Port Vathi* and the *Island Scorpio*: these you must be careful to avoid, as there is deep water every where about them. There is also a *sunken rock* lying mid-channel between the *Islands Sparti* and *Santa Maura*; but having cleared this danger, and passed *Sparti*, *Fort Giorgio* will be right ahead, and you must proceed as before directed.

Men-of-war, or large ships, will find good anchorage W. S. W. $\frac{3}{4}$ W. (*S. W.*) of the above *Turkish Fort*, in 10 or 15 fathoms water, good holding ground of mud and clay; but this anchorage is quite under the command of the Fort, and therefore could not be resorted to during a war with the Turks: vessels should then anchor along the eastern side of *Santa Maura*, in from 25 to 12 fathoms water, the ground of mud, holding well, and out of the gun-shot of the Fort. There is also good anchorage within the *Island of Sparti*, and between the little *Island Muduri* and the entrance of the *Port Vliko*, with from 15 to 12 fathoms water: but the harbour itself is too shoal for large vessels, there being only 3 and 3 $\frac{1}{2}$ fathoms in it, and its entrance but 50 fathoms wide. Here is a fine run of water, near a white shingly point, about 2 miles to the S. $\frac{3}{4}$ W. (*S. S. W.*) of the anchorage. Ships may anchor 2 or 3 cables' length off it, and thus get supplied in a short space of time by rafting their casks off; but there is no wood to be had from *Santa Maura*; that article must be obtained from the *Albanian shores*.

A current has been found setting either to the northward or southward, and, in blowing weather, the water has been known to rise above 5 feet; but there are no regular tides. The most prevailing winds in winter are from between the S. E. and S. W. points of the compass. N. and N. W. winds commonly blow the strongest, but their duration is short.

The *Island of Meganisi* is a dependency of *Santa Maura*, and under the presidency of a magistrate. It is computed to contain about 300 inhabitants; but these obtain a subsistence with much difficulty, by cultivating some arid tracts of land, and from the produce of their sheep and goats, which chiefly feed upon brushwood. The island is all of a rocky nature, and there is no water except what is obtained from the rains; so that in dry seasons they are obliged to import it from the adjoining lands, the sheep and goats having at those times nothing but sea-water to drink.

CEPHALONIA is the largest and most populous of the *Ionian Islands*: its length from *Cape Viscardo* to *Cape Skala* is 28 miles, and its breadth extremely variable; its form is irregular, and its appearance mountainous. There are three towns, 75 villages, and about 65,000 inhabitants. The soil is of great fertility, the trees being covered with flowers all the winter, and frequently bearing fruit twice a year. Corn is not produced in sufficient quantities for the consumption of the inhabitants; but currants, oil, wines (particularly Muscadell), melons, citrons, oranges, pomegranates, brandy, cotton, oats, linseed, honey, and raisins are in abundance; these latter are of a superior quality, and produce 3000 tons every year. Their exports of oil amount to 30,000 casks, and their wines, of which there are not less than 18 different sorts, to 35,000 per annum. In addition to these, there is a liquor called Rosalio, or Meraschino, in great repute, a large quantity of which is exported annually; and there also are manufactories of

coarse cotton cloths, particularly of a kind of nankeen, used formerly for clothing the Venetian troops, and now among the mariners and artisans. Their chief imports are corn, woollens, linen, sugar, and hardware. The number of vessels which belong to this island is estimated at 400, which, with their fisheries, employ 6 or 7000 of the natives, who navigate the *Mediterranean*, and trade to *Constantinople*, the *Black Sea*, *Alexandria*, *Smyrna*, and other places in the *Levant*. These vessels have a charter, obliging them to load with the produce of the island *only*. Numerous foreign ships annually arrive here from *England*, *Trieste*, and other places, principally for currants, oils, and wines. Its capital is *Argostoli*, situated on the shores of a bay to the S. westward.

Cape Viscardo, the northern *Point of Cephalonia*, is in latitude $38^{\circ} 28' 40''$ N., and longitude $20^{\circ} 33' 0''$ E. S. W. (*W. S. W. $\frac{1}{2}$ S.*) from this, distant $9\frac{1}{2}$ miles, is *Cape Aterra*, the N. W. point of the island, in latitude $38^{\circ} 21' 30''$ N., and longitude $20^{\circ} 24' 15''$ E. The coast between these two points bends inward, and forms an extensive bay, within which, and about 6 miles south (*S. S. W. $\frac{1}{2}$ S.*) of *Cape Viscardo*, is *Port Asso*, erected on a headland which projects into the sea, and joined to the main by a low sandy narrow isthmus. Vessels caught within this bay, with strong northerly winds, will find great difficulty in working themselves out; but the coasts are generally bold, and the water throughout very deep. Just to the eastward of *Cape Aterra*, and between it and *Point Kakata*, is *Port Aterra*, where a vessel may run into in case of necessity. There is a small islet mid-channel, with a passage on either side, and 10 fathoms within it.

Having passed to the westward of *Cape Aterra*, a S. S. W. (*S. W. $\frac{1}{2}$ S.*) course for 6 miles will carry you to *Point Ortalita*, about which are some rocks above water. From thence steer $3\frac{1}{2}$ miles S. by W. (*S. S. W. $\frac{1}{2}$ W.*) for *Point Kobbo*, then S. by E. (*S. $\frac{1}{2}$ W.*), about 2 miles, and you will weather *Katudakia*, from whence sailing S. E. $\frac{1}{2}$ S. (*S. S. E. $\frac{1}{2}$ E.*) $2\frac{1}{2}$ miles, you will be abreast of *Cape Aji*. The land almost all the way from *Cape Aterra* is high and precipitous; there are two or three spots of sandy beach, but no shelter.

ARGOSTOLI, OR HARBOUR OF CEPHALONIA. *Cape Aji*, which forms the S. western side of the *Gulf of Argostoli*, is in latitude $38^{\circ} 8' 40''$ N., and longitude $20^{\circ} 23' 30''$ E. E. S. E. $\frac{1}{2}$ E. from *Cape Aji*, distant $4\frac{1}{2}$ miles, is *Cape St. Nicolo*, the S. E. point of the *Gulf*: about two-thirds from *St. Nicolo*, and one-third from *Cape Aji*, is the *Island of Guardiani*, low, having a convent of Greek priests upon it, and also a lighthouse. Within these two *Capes* the land bends inward, and forms the entrance to the *Port of Argostoli*: this *Port* runs in N. $\frac{1}{2}$ W. (*N. $\frac{1}{2}$ E.*), full 6 miles, having at its furthestmost part a sandy beach, called *Livadi*. On the eastern side of the *Port* is the *Town of Argostoli*, the capital of the island; it is situated on the west side of a little haven, or cove, and contains about 2500 houses, with 8000 inhabitants, the town being nearly a mile long. The houses are low, small, and meanly built, having more the appearance of a village than the capital. The harbour is considered the best in the island: here are several dockyards, and the flotilla is one of the most numerous in the *Archipelago*. It has much the appearance of a river; and sentries are stationed along its banks, to hail the boats that pass. On a high hill to the N. westward of the town is a telegraph, which commands an extensive view of the surrounding country. The inner haven or port is an excellent place of shelter; its greatest inconvenience is its being open to the N. N. W. winds. On the eastern side of the town is a gigantic mountain, which overhangs and darkens it, so as to keep it in perpetual gloom; but the scenery in the vicinity, consisting of meadow lands, bounded by lofty mountains, and planted with vines and herbs, are highly diversified, luxuriant, and beautiful. On an eminence at a little distance from the town, in a S. westerly direction, is a castle, containing a kind of garrison; but this castle is now in ruins, and overlooked by the neighbouring mountains. At the inner part of *Port Argostoli* is a low bridge, which crosses the head of a marsh, and by obstructing the salutary course of the water, has created a stagnant pool, producing malaria in the town.

The southern coast, at the entrance from *Cape Aji* to *Point St. George*, a distance of nearly 3 miles, is low, and bordered by a shelf about half-a-mile broad: there are some rocks about *Cape Aji*, and a spit runs out to the southward from *Point St. George* full one mile, having at its further end 3 fathoms water upon it; this renders the passage between it and the *Island Guardiani* narrow, and sometimes unsafe; while the point and coast round *St. Nicolo* are also rocky, but the reef does not run far out.

To enter the *Port of Argostoli*, it is always preferable to pass to the southward of

the *Island Guardiani*, giving it a berth of about one mile, by which you will clear the low ground which surrounds it. To do this, you may bring the *Church of St. Nicolo*, which stands near the point, and will be recognised by its *white steeple*, on with the centre of the village above it, bearing E. N. E. $\frac{1}{2}$ E. (*East*); keep this mark on until you open the *Town of Luxuri*, within the *eastern point of the Gulf*; then steer to the northward, observing to keep the two northernmost *Mills at Luxuri* on with, or open of, the *eastern steeple of the town*, which is square; by doing this, you will avoid the *reef*, which stretches out from the *Point St. Giorgio*. The thwart-mark is a remarkable *bluff point* on the eastern side of the entrance, about half way between *St. Nicolo Point* and *Point St. Toderà*, on with a large *white house* standing upon the hill above it, and near to a village.

After you have passed the *St. Giorgio Reef*, your course in will be N. $\frac{1}{2}$ W. (*N. by E.*), until you are beyond *Point St. Toderà*, or *Hook Point*, which is at the entrance of the inner port, very low land, and has a *rocky shoal* running from it to the southward. The marks to clear this are the *convent or lighthouse on Guardiani* on with *Point St. Giorgio*, until you open the *Town of Argostoli*; you may then steer on mid-channel, or keep the starboard shore on board, and take up your anchorage.

Ships coming from the southward, will readily enter this harbour, by giving the *Island and Point St. Nicolo* a good berth of one quarter of a mile; and in turning in or out, they should not stand nearer than a quarter of a mile of either shore, for within that distance there may be some *spots of foul ground*, with shallow water over them: but by steering in mid-channel, you will find from 12 to 15 fathoms water, until you reach *Luxuri*, from abreast of which the water shallows as you advance towards the further end of the port.

The best anchorage in the outer road will be with *Point St. Toderà* E. by N. $\frac{1}{2}$ E. (*E. by S.*), or E. $\frac{1}{2}$ N. (*E. $\frac{1}{2}$ S.*), distant $\frac{1}{2}$ of a mile, in from 13 to 12 fathoms, mud; and in the *inner harbour*, about mid-channel, in from 12 to 10 fathoms, mud, with *Point St. Toderà* shut in with the next point within it, and the *Lazaretto* bearing from S. W. $\frac{1}{2}$ W. (*W. S. W.*) to W. S. W. $\frac{1}{2}$ W. (*West*). Moor with an open hawser to the north-westward, from which quarter the strongest winds come, and the longest fetch you can have.

There is a rise and fall of water here of between one and three feet, and a current sets in and out every 24 hours, but its change is not regular.

Water may be procured from a well in the town; and about half-a-mile within *Cape Luxuri* there is a run of good water, from which, by rafting it off, a fleet might be quickly supplied; but wood is scarce and dear. The town of *Luxuri* is healthily situated, and much more convenient than *Argostoli*; the shores are deep, and favourable for erecting wharfs and landing-places, while the country around yields a greater quantity of produce for exportation: there are many storehouses, and this is the principal dépôt for wines and currants. The country on this side of the harbour presents a fertile and agreeable appearance: not a hill or mountain interrupts the plain; but corn, and plantations of vines, herbs, and vegetables meet the eye in varied luxuriance.

Leaving the harbour of *Cephalonia*, and proceeding S. E. (*S. S. E. $\frac{1}{2}$ E.*) from *Cape St. Nicolo*, you will pass *Pelagia*, and the little rocky islet *St. Helia*; but do not go inside of the latter, on account of several sunken rocks which lie thereabout. Having passed *St. Helia*, steer E. S. E. $\frac{1}{2}$ E. (*E. S. E. $\frac{1}{2}$ S.*), about 10 miles, for *Cape Skala*, which is the S. eastern extremity of the island, and lies in latitude $38^{\circ} 31' 0''$ N., and longitude $20^{\circ} 46' 30''$ E. From *Cape Skala* a rocky reef runs out full a mile; and in rounding it at a short distance, you will have 6 and 8 fathoms; but be careful not to go nearer, or into less water. The land now turns N. N. E. (*N. E. $\frac{1}{2}$ N.*) towards *Cape Capri*, distant 5 miles, the reef which environs *Cape Skali* extending all along the shore, and terminating at *Capri*; this space between the two Capes is usually called *Anastasio Bay*: vessels may occasionally ride there in from 11 to 20 fathoms, but wholly unsheltered from the East and S. eastward.

From *Cape Capri* the shore runs N. W. by N. (*N. by W. $\frac{1}{2}$ W.*), 11 miles, to *Cape Kelia*, the eastern point of the *Bay of Samos*. The coast is clear all the way, and free from danger, there being from 20 to 50 fathoms very near the land.

The *Bay of Samos* is semicircular, and affords convenient shelter, being $2\frac{1}{2}$ miles wide, and having at its south-western extremity a broad sandy beach, with 12, 14, and 19 fathoms before it. On its eastern side are some ruinous buildings, with a monastery; and on the beach the remains of the ancient City of *Samos*. On the western side, the small Cove or Port of *St. Euphemia*: it is only inhabited by fishermen.

From *Cape Kehia*, a N. N. W. (*N. $\frac{1}{2}$ W.*) course will carry you to *Port Viscardo*; and this is the general direction of the channel which separates *Cephalonia* from *Ithaca*. This channel is commonly called the *Viscardo Channel*, or *Channel of Ithaca*; it is about a league broad, with deep water throughout, and clear from any danger. About a league from its northern end, and one mile from the Cephalonian shore, is the little *Island Dascaglio*, upon which is an old tower, which answers for a beacon. Off the northern end of the island is a *small rock* under water; but there are 20 and 32 fathoms close to it, and 36 and 40 between it and *Port Viscardo*. In sailing through this strait or channel, the hills on each side present an agreeable prospect, and you will see on the Cephalonian shore *several tents*, regularly placed, where the natives watch vessels, in order to enforce the quarantine.

ITHACA, OR THEAKI. This is a long and narrow island, lying in a N. N. W. and S. S. E. (*N. $\frac{1}{2}$ W. and S. $\frac{1}{2}$ E.*) direction; being about 12 miles long, and $3\frac{1}{4}$ miles broad, except near the middle part, where it is nearly cut in two by the indentation of the *Gulf of Molo*. This island has a remarkably barren and ragged appearance, being, in fact, one great ridge of limestone rock, rising at intervals into abrupt and lofty eminences, the highest of which are the mountains of *Stephanos* and *Neritos*; the former of these occupying the southern division of the island; the latter the northern. There are hardly 200 yards of level ground any where, and the soil is generally chalky and stony; wood is scarce, and the chief productions of the island are currants, corn, and olives: there are also almonds and oranges; but the inhabitants derive the principal part of their subsistence from the sea, being either sailors or fishermen. Its scenery is bold and striking, and Mr. Turner has remarked "that, on making the island, its appearance was that of a rock, covered over with a shallow coat of rusty moss." Its population is from 7 to 8000.

Point Marmaca, the northern point of *Ithaca*, is in latitude $38^{\circ} 30' 0''$ N., and longitude $20^{\circ} 39' 0''$ E., and forms a narrow point, which becomes broader as you advance to the southward. S. W. $\frac{1}{2}$ S. (*S. W. $\frac{1}{2}$ W.*) from *Point Marmaca*, distant 2 miles, is another point of land, and between them is the *Bay of Afrikis*, not much frequented, on account of its being so exposed to the north-westward. On the land, at its western side, is an old fortress: the western shores of *Ithaca* are bold and rocky, but without any harbour whatever, except the little coves of *Paglio* and *Aito*, and these are only fit for boats; but on its eastern side is a wide and extensive opening, called the *Gulf of Molo*, the entrance to which from *Point Skinos* to *Point St. Elias*, is two miles and a half broad. Here, on the southern shore, is the small but snug harbour of *Vathi*, or *Bathi*, the best in *Ithaca*. The town consists of only one street, the houses badly built, and the population 3000. This place may readily be known by the *Island Atoko*, which lies before it; and also by the high land to the northward and southward of it, forming an opening or valley between. The *Island Atoko* is about 2 miles long, and has some good arable land, with pasturage for sheep and goats; it is high, particularly towards its S. west side; from which the entrance to the *Gulf of Molo* bears S. W. $\frac{1}{2}$ S. (*S. W. $\frac{1}{2}$ W.*), distant 6 miles. At the entrance of the *Gulf* there are from 130 to 100 fathoms, gradually decreasing to 60, 40, 30, 18, and 10 fathoms, the latter depth being near the beach, at the farther end. If you are going to *Vathi*, or the inner harbour, which will not be visible until you approach near to it, steer in S. S. W. $\frac{1}{2}$ W. (*S. W.*), until you perceive a small round island lying within it, on its southern side; and in entering, leave this to the starboard, and run in S. E. $\frac{1}{2}$ S. (*S. E.*) for the anchorage. With a leading wind, the harbour of *Vathi* is easy of access; but difficult with a beating one, being too narrow to work a long vessel in: but there are rock-stones on both sides, to facilitate the progress of warping. When in, the harbour forms a kind of basin, capable of containing a great number of ships, and perfectly land-locked. To the south-westward you will observe another *small islet*, about a cable's length from the shore, on which is the *Lazaretto*; between this and the land is a passage with 2 and 3 fathoms water.

The best anchorage for men-of-war is to the N. N. E. $\frac{1}{2}$ E. (*N. E.*) of the *Lazaretto Islet*, in from 15 to 10 fathoms, on a bottom of soft mud; but you must not go with a large ship above the *Lazaretto*, for there the water shoalens suddenly to 3 fathoms. Moor athwart the harbour, with an open hawse, to the northward and westward. The *Town of Vathi* extends round the southern part of the harbour, and is said to occupy the site of the ancient town of *Ithaca*; it has a population of about 3000: there are some fortifications about the *Lazaretto*.

Port Skinos is to the eastward of *Vathi*, and forms a temporary anchorage when you cannot, or are not desirous of going into *Vathi*; here you may anchor in 38 to 20

fathoms water ; but strong N. W. and north winds will prove very troublesome. There is no regular tide at these places ; but the water will sometimes rise 2 or even 3 feet. In summer, water may be had from a well near the beach of a sandy cove to the southward of *Dezia Island*, but it is very indifferent ; and in winter you may obtain good water from a rivulet at the bottom of the *Gulf* ; but wood is scarce, and very dear.

From the entrance of the *Gulf of Molo*, a S. S. E. ($S. \frac{1}{2} E.$) course will carry you to *Point Agiani*, the S. eastern part of *Ithaca*, in latitude $38^{\circ} 19' 20''$ N., and longitude $20^{\circ} 46' 0''$ E. The shores are steep, and indented with many inflections, but there is no harbour or place of shelter.

ZANTE. This island is separated from *Cephalonia* by a channel 7 miles broad, and from the main land of the *Morea*, 10 miles. It lies nearly N. N. W. and S. S. E., ($N. \frac{1}{2} W.$ and $S. \frac{1}{2} E.$), and is from its northern point, *Cape Skinari*, to its southern point, *Cape Kieri*, 19 miles long, and from 6 to 10 miles broad, its widest part being towards the south. The whole western part of *Zante* is mountainous ; but its eastern division is one continued plain or valley, only interrupted by the *Mountain of Skopo*, covered with orange-groves, citrons, and myrtles, upon which stands a *Convent*, and which is the highest part in all the island. *Zante* has no large rivers, and in summer experiences much inconvenience, on account of the drying up of the springs and wells : the whole surface of the island presents traces of volcanic fires, evidenced in some parts by warm sulphureous springs, and in others by heat in the soil, which communicates uncommon activity to its vegetation. Springs of petroleum and mineral tar are here worked to great advantage ; and the climate, though hot in summer, is not unwholesome ; but the winters are frequently wet and cold, and accompanied with borascas, or violent winds. The greatest natural curiosity of *Zante* is its wells of pitch ; these are situated at the extreme end of the plain, to the northward of *Kieri*. The pitch boils up in large bubbles underneath the surface of the water, and is gathered, in its liquid state, by means of long bunches of myrtle suspended from a pole ; on exposure to the air, it soon hardens. These wells are situated in a swampy ground, surrounded on one side by a line of rocks, and on the other by a marsh leading to the sea ; there is also a well, which furnishes a peculiar substance used in manufacturing soap. The shores of the island are begirt, in many parts, with *steep rocks*, which frequently form recesses, answering, in some measure, the purposes of harbours. The exports of the country consist of currants, wines, oil, cotton, silk, and corn. The produce in currants is upwards of 7,500,000 lbs. annually, the largest portion of which is shipped for England, and the remainder for Trieste, and other ports in the Adriatic ; and of oil from 50 to 55,000 barrels ; but this is neither so good, nor in such demand, as the oils of Corfu and Cerigo. But of corn hardly enough is raised to supply three months' consumption ; the peasantry therefore go over to the *Morea* in harvest-time, and are paid for their labour, in corn, of which it is computed they bring back full 50,000 bushels. The pasturage is trifling, and goats are their only live-stock. The population of this island is computed at 40,000. Like all the adjacent islands, *Zante* is subject to frequent shocks of earthquakes ; but these seldom overthrow the buildings, or occasion the loss of lives ; though, in 1820, there was a lamentable instance of one, by which 1300 houses were destroyed, and a great number of others much damaged.

Cape Skinari, the northern point of the *Island of Zante*, is in latitude $37^{\circ} 56' 50''$ N., and longitude $20^{\circ} 41' 30''$ E. When you are coming in from the westward, between the *Island Cephalonia* and *Zante*, you may sail close to the *Cape*, for it is steep-to, and there is no danger whatever. Having passed this, you will see the *Island of St. Nicolo*, behind which, in case of necessity, you may find anchorage ; or in a roadstead, a little farther on, you will get sheltered from westerly winds, and ride in from 12 to 18 fathoms, the ground holding well ; but if you are desirous of proceeding to the *Bay of Zante*, you should steer S. E. $\frac{1}{2}$ E. ($S. E. \frac{1}{2} S.$) from *Cape Skinari*, towards *Point Krio Nera*, the northern point of the bay, taking this course, to avoid the shoal water which borders the coast from *Point Katastari* to *Zante* ; give the land a berth of one mile or more, until you approach the little islet *Trenta Nova*, which is about a mile before you reach *Point Nera*. Do not come too near that point, because there is a *rocky shoal* runs from it above a quarter of a mile, on the edge of which are only 4, 3, and 2 fathoms. To avoid this reef, bring the first hill, to the southward of *Cape Skinari*, a little open to the northern side of *Trenta Nova*, until the east and west bastions of *Zante* come in one with each other ; then haul up into the bay : observe not to get into less than 7 fathoms when you are passing *Point Krio Nera*, and steer for the *Mole Head*. From *Point Krio Nera* to *Point Davia*, the distance is $3\frac{1}{2}$ miles, and the course S. E. by S. ($S. by E. \frac{1}{2} E.$). *Point Davia* is a bluff rocky point, which terminates the *Bay of Zante*.

on the southward. There is a *sandy flat* about it, and this flat extends all the way from the *Town of Zante* round the S. eastern end of the island: there is also a *reef* about half-a-mile to the N. W. (*N. N. W. $\frac{1}{2}$ W.*) from *Point Davia*, upon which there are no more than 9 feet water, and from 3 to 4 fathoms between it and the shore: the marks for this *reef* are, the *S. E. bastion* of the *Castle* on with the *Mole Head*, bearing W. by N. $\frac{1}{2}$ W. (*W. N. W.*), and the *Lazaretto*, which stands upon the southern shore. S. W. $\frac{1}{2}$ S. (*S. W. by W.*). In turning in or out of the bay, you should stand no further to the southward than to bring the *Lazaretto* on with a 'little round hill' to the S. S. W. $\frac{1}{2}$ W. (*S. W.*): there are three small hills nearly together, but the middle one is here intended, in order to clear the *reef*. The best anchorage will be with the *mole-head* bearing from S. W. $\frac{1}{2}$ W. to W. N. W. $\frac{1}{2}$ W. (*W. S. W. to West.*); *Point Krio Nera* N. N. W. $\frac{1}{2}$ N. (*North*) nearly; and *Point Basiliko* S. E. $\frac{1}{2}$ S. (*S. S. E.*) or S. E. $\frac{1}{2}$ E. (*S. E. by S.*), in from 7 to 9 fathoms, blue mud and clay, holding well, but open to the eastward round by north, to S. E. by S. At times there will be a rise of two or three feet water, but generally there is no regular tide.

Water may be had from the N. W. side of the bay near *Point Krio Nera*, from a pipe, filling your casks with a hose. Wood cannot always be obtained.

THE CITY OR CHIEF TOWN OF ZANTE is considered the largest in the *Ionian Islands*, and has a population of 18 or 19,000: it is situated at the bottom of the Bay, and on the declivity of a hill, which descends towards the sea with an almost imperceptible slope. The principal street, which traverses its whole length, is broad and handsome, and has a foot pavement. The market-place is spacious, and serves for an exchange every day, and a public promenade during the summer evenings. The houses are white, and seldom more than one story high; they have a custom of painting their window-hutters green and vermilion, which has a very lively appearance. Their churches are well built, but have nothing remarkable about them. The harbour is capacious, and the mole or jetty particularly useful. Quarantine is performed at the distance of two miles from the shore, and under the guns of a *Fortress*, which stands on an eminence to the N. W. The *Castle of Zante* is in latitude $37^{\circ} 41' 20''$ N., and longitude $20^{\circ} 54' 5''$ E. The *Lazaretto* affords but indifferent accommodation, and is placed in a bad situation, being adjacent to a marsh, which produces malaria.

From *Point Davia*, the southern point of the *Bay of Zante*, a S. E. by E. (*S. E. $\frac{1}{2}$ S.*) course for 3 miles will carry you to *Point Basiliko*; the land then turns S. a little W. (*S. by W. $\frac{1}{2}$ W.*) to *Point Geraka*, when it opens to the westward, forming, between that point and *Cape Kieri*, an extensive bay, in which are the *Islands of Peluso* and *Maratonisi*; the former of these lies near the *Point Geraka*, from which it bears W. $\frac{1}{2}$ S. (*W. by N.*), distant $2\frac{1}{2}$ miles. Between it and *Zante* there is a passage with 10 fathoms water, the channel being clear from danger. There is shoal water round the *Island Peluso*, and off its western point is a sunken rock. The bay thence runs in to the westward, and has from 13 to 4 fathoms within it; but the ground is said to be rocky, and the anchorage much exposed to S. and S. easterly winds. *Maratonisi* is much larger than *Peluso Island*, and connected to *Zante* by a *sandy reef*, extending northward towards the shore: upon this island is an *old tower*, situated in a garden of olive-trees. The face of the islet is high and steep. Behind this island, and between it and the shore, is a tolerably fair harbour, well sheltered, and called *Kieri Bay*, at the entrance to which there are 14 fathoms water, and within it from 9 to 3 fathoms.

Cape Kieri, or *Chieri*, is the southernmost *Point of Zante*, and lies in latitude $37^{\circ} 38' 35''$ N., longitude $20^{\circ} 49' 30''$ E.

From *Cape Kieri* the western coast of *Zante* runs N. W. $\frac{1}{2}$ N. (*N. N. W. $\frac{1}{2}$ W.*), 13 miles, to *Port Vromi*, before which is a large rock above water, called *Yami*. To enter this little port, you must pass to the southward of *Yami*, and beware of a *rock under water*, which runs off the starboard point as you enter; there are 9 fathoms in this place, but it is little frequented. The coast now turns North (*N. by E. $\frac{1}{2}$ E.*) for $3\frac{1}{2}$ miles, to *St. Giorgio*, and then N. N. E. $\frac{1}{2}$ E. (*N. E. $\frac{1}{2}$ N.*) 5 miles, to *Cape Skinari*. The whole of this coast from *Cape Kieri* to *Cape Skinari* is high, rocky, and mountainous land, and, except the little *Port of Yami*, already mentioned, without either harbour or place of shelter; but the water all along is deep, and the shores steep-to.

STAMPHANE ISLANDS. S. S. E. (*S. $\frac{1}{2}$ E.*) from *Cape Kieri* in *Zante*, distant 24 miles, are the *Stamphanes* or *Strofadia Islands*: they are two in number; the largest lies in latitude $37^{\circ} 15' 0''$ N., and longitude $21^{\circ} 1' 30''$ E. These are very low islets, and almost even with the water's edge: the ground about them is all foul, more particularly on their western side. The southern, or largest, is called the *Convent Island*; the northern one is merely a *great rock*, and named the *Harpy*. The water

round them is very deep on all sides, there being from 40 to 50 fathoms within a short distance. These rocks are very dangerous, especially during the night, and have occasioned the wreck of many vessels: they are therefore justly an object of terror to those who navigate these seas. Upon the larger isle stands an *old Convent*, dedicated to our Redeemer; it is formed of free-stone, resembling white marble, being 90 feet high, and divided into four parts, each defended by a tower. The access to it is by means of a door leading to the vaults, which is closed immediately any alarm is given; the Monks are then drawn up by means of baskets, in a similar manner to the Copt monasteries in Egypt. The establishment consists of a Grand Prior, Sub-Prior, eight Priests, holding various ranks, and 62 Brothers. These have several Zantiotes in pay, who procure their provisions, &c. They are supplied with water by some singular springs, which have given a kind of celebrity to the place. Beyond these islands, in clear weather, you will perceive the high and dark mountains of the *Morea*. There is a small channel between them, with 5 fathoms water; but no vessel should attempt this passage on any occasion whatever.

THE COAST OF GREECE. From the entrance of the *Gulf of Previsa* the shore runs S. S. W. (*S. W. $\frac{1}{2}$ S.*) to *Santa Maura*, (described in page 192). Opposite to the *Castle of Santa Maura* is *Fort Tekla*, commanding the narrow entrance to the channel that leads between *Leucadia* and the *Main*; $3\frac{1}{2}$ miles to the southward of which is *Fort Giorgio*, before noticed. From this *Fort* the Grecian coast pursues a S. S. E. $\frac{1}{2}$ E. (*S. by E. $\frac{1}{2}$ E.*) direction to *Cape Kefali*, and then turns E. $\frac{1}{2}$ N. (*E. $\frac{1}{2}$ S.*) towards the *Bay of Zaverda*, passing the coves or inlets of *Valhi Valle* and *Livadaki*, this latter being a considerable inlet running in N. E. by N. (*N. E. $\frac{1}{2}$ E.*), and having the *Verdura Island* lying before its entrance. There is a passage on either side of this island, with 8 fathoms to the westward, and 20 fathoms to the eastward; within the inlet are from 14 to 7 fathoms.

The *Bay of Zaverda* is $3\frac{1}{2}$ miles wide at its entrance. Its western side is very high land, and there are some rocky islets lying off it; at the bottom is a broad sandy beach, into which two branches of a river enter, and here stands the *Town of Zaverda* or *Xeromero*. This bay is open, and affords no shelter: its eastern shore runs S. by E. (*S. $\frac{1}{2}$ W.*) to the *Island of Kalamo*, a distance of eight miles, and then E. $\frac{1}{2}$ N. (*E. by S.*), forming the strait which separates the main from the *Island of Kalamo*; this is a full mile broad, and has from 40 to 29 fathoms in it. There are two coves to the northward, on the Coast of Greece, having sandy beaches, where vessels may ride in 10, 9, and 8 fathoms water. Behind them, inland, are the high *Mountains of Bergandi* and *Mannina*; a branch from which continues along the coast so far as *Dragomestre*; the shore all the way being steep-to, and without danger.

Having arrived in latitude $38^{\circ} 30'$, a channel runs in easterly towards the *Bay of Dragomestre*. There are numerous islands in the front of its entrance, with deep water channels between them all: *Dragonera*, one of the largest, is inhabited, producing olive-trees, some pasturage, and has a little port or harbour on its western side. *Provati* and *Pondico* also have some inhabitants, and are partially cultivated. *Modi*, the southerly islet of this group, has about one-third pasturage. These, with several others to the westward, all go under the denomination of the *Dragonera Islands*.

The *Bay of Dragomestre* is a mile wide, and runs up N. E. by N. (*N. E. $\frac{1}{2}$ E.*) $\frac{1}{4}$ miles; at its entrance are 32 fathoms; it then shallows, as you advance, to 26, 21, 10, and 7 fathoms. At its further end is a sandy beach, and the *Town of Dragomestre*, in latitude $38^{\circ} 32' 45''$ N., and longitude $21^{\circ} 6' 0''$ E. To the southward is *Port Plattea*; its entrance is narrow, but when within, you will ride secure in 14 to 10 fathoms. Further on is the *Island Petala*, 3 miles long, and hilly, having no passage within it, except for boats; but at its southern end there is a channel into a circular basin, where small vessels may ride almost land-locked, in 3 and 2 fathoms water; being protected on the West and N. W. sides by the *Island of Petala*; on the S. W. by an isthmus, which juts out from the main land, and runs to the northward, almost meeting the south point of *Petala*; and on the east by Grecian mountains.

From hence the main land stretches S. S. E. (*S. $\frac{1}{2}$ E.*), about two leagues, to the *Point of Skropha*, behind which are extensive low lands and marshes, through which runs the *River Aspro Potamo*; an ancient *Achelous*. In the front of *Skropha* is the *Island of Oxia*, lying S. W. by S. and N. E. by N. (*S. W. $\frac{1}{2}$ S.* and *N. E. $\frac{1}{2}$ N.*), being $2\frac{1}{2}$ miles long, and $\frac{1}{2}$ of a mile broad; this is inhabited, and has a priest and several Greek peasants. There is a channel between this island and the main,

within which are from 20 to 30 fathoms; two or three rivulets empty themselves from the main in this part, and near the land are three *rocky islets*. The south end of *Oria Island* is in latitude $38^{\circ} 17' 20''$ N., and longitude $21^{\circ} 6' 15''$ E. To the N. W. (*N. N. W. $\frac{1}{2}$ W.*) of *Oria*, distant $3\frac{1}{2}$ miles, is the *Island Makri*; a long and narrow islet, upon which there is fresh water, and a few inhabitants, who contrive to keep it in a state of partial cultivation. At its S. E. end is a *rock* above water, close to which are 42 fathoms water, and between it and the main 32 and 29 fathoms, the latter being close to the isthmus before mentioned. W. by N. (*W. N. W. $\frac{1}{2}$ N.*) from *Makri*, distant nearly $1\frac{1}{2}$ mile, is the *Vromona Isle*, about a mile long, and inhabited; this is under cultivation, and affords pasturage for goats. These are generally distinguished by the name of the *Kurzolari Islands*; they are all surrounded with deep water, and may be passed on any side, as may be most convenient.

GULFS OF PATRAS AND LEPANTO. The *Gulf of Patras* is bounded on the N. W. by the *Isle of Oria*, and on the S. W. by *Cape Papas*; the former lying, as before observed, in latitude $38^{\circ} 17' 20''$ N., and longitude $21^{\circ} 6' 15''$ E., and the latter in latitude $38^{\circ} 12' 40''$ N., and longitude $21^{\circ} 25' 30''$ E., bearing from each other W. N. W. $\frac{1}{2}$ W. (*W. N. W. $\frac{1}{2}$ N.*), and E. S. E. $\frac{1}{2}$ E. (*E. S. E. $\frac{1}{2}$ S.*), distant 15 miles. The general tendency of the northern shore from *Oria* to *Point Bakari* is low and sandy, having soundings gradually decreasing towards the beach, and extensive lagoons inland, into which there are many openings and communications from the sea; here fisheries are carried on, which are productive of considerable profit, and afford employment to numbers. The distance from the south point of *Oria* to *Cape Bakari* is 19 miles; about 6 miles before you reach *Bakari*, there is a small *fortress*, intended to protect the fisheries, and near it, the customary landing-place. On the edge of one of these lagoons is the *Town of Messalongia*, distinguished of late years by its memorable defence against the Turkish and Egyptian armies. It is small, and of itself inconsiderable, being about $2\frac{1}{2}$ miles inland, and $5\frac{1}{2}$ miles from *Point Bakari*.

Point Bakari bears from *Cape Papas* N. E. $\frac{1}{2}$ N. (*N. E. by E.*), distant 6 miles; and from *Point Bakari* to *Roumelia Castle*, the course is E. $\frac{1}{2}$ N. (*E. $\frac{1}{2}$ S.*), and the distance 14 miles, the land between bending in somewhat circularly to the northward. The shores continue low and sandy, with several lakes in the interior; but about 7 miles from *Point Bakari* there is an elevated point, where the *Mountains of Paleo Vouna* stretch northward; and again, at the distance of $3\frac{1}{2}$ miles further, you will see the *Mount Kako Skala*. That part of the shore from *Point Bakari* to *Paleo Vouna* is environed with a sandy flat, which runs out $1\frac{1}{2}$ mile from the land, and has only 4 and 3 fathoms upon it, while outside it deepens to 10, 12, 20, and 29 fathoms; therefore it must always have a berth in passing. *Roumelia Castle* is in latitude $38^{\circ} 19' 15''$ N., and longitude $21^{\circ} 48' 30''$ E., and now in a dilapidated state, but still mounts from 25 to 30 guns. On the opposite side, distant one mile, is the *Castle of Morea*, furnished with similar means of resistance: these are intended to secure the entrance of the *Gulf of Lepanto*; but both these *Castles*, it is said, could not prevent the passage being forced by an English frigate. The depth of water in the channel is from 30 to 35 fathoms.

LEPANTO. Having passed between these two *Castles*, you will enter the *Gulf of Lepanto*, formerly called the *Gulf of Corinth*; a vast inland sea, which stretches to the east and south-eastward full 60 miles, being only divided from the *Gulf of Athens* by a neck of land, 4 miles wide, called the *Isthmus of Corinth*. This *Gulf* is said to be navigable throughout, but at present it is little known. N. E. $\frac{1}{2}$ N., about $3\frac{1}{2}$ miles from *Roumelia Castle*, is the *Town of Lepanto*, called by the Turks *Enebachti*: it stands on the side of a hill, upon which is a *Castle*, and is built in a triangular form, being surrounded by walls and other fortifications, now falling to decay. The once excellent harbour is blocked up with mud and sand, and will only admit the smallest vessels; the entrance is about 100 yards across, and occasionally closed with a chain, but there are only 5 feet water within it. The surrounding country is cultivated, and sown with corn, grapes, and water-melons; but at present it has little or no commerce.

About $4\frac{1}{2}$ leagues E. S. E. $\frac{1}{2}$ E. (*S. E. by E.*) from *Lepanto* is the *Town of Vostitza*, the ancient *Ægeum*, standing on the southern side of the *Gulf*. This was formerly a good port, and carried on a considerable trade; but in 1817 it was nearly destroyed by an earthquake, and since that time has never recovered its former importance. E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ N.*) from *Vostitza* is the entrance to the *Bay or Gulf of Salona*: this is the outlet of a considerable town of that name situ-

ated inland, at the foot of *Mount Parnassus*; the population is computed at 8000, and its trade is considerable, having manufactories of tobacco and cotton, both of which articles are grown in the neighbourhood. It is situated on the banks of the *River Shisa*, in latitude $38^{\circ} 32' 0''$ N., and longitude $22^{\circ} 30' 0''$ E. Seven miles to the eastward of *Salona* is the *Village of Castri*; this place is built upon a mountain, above which towers a *naked rock*, 200 feet high. Here is the celebrated *Pythian Cave*, whose recesses remain unexplored. About a league S. W. $\frac{1}{4}$ W. (*W. S. W.*) from *Castri* is the *Port of Cirrha*, now in a state of decay; and in the path of the mountain from *Castro* to *Chryso* are several sepulchres hewn in the rock.

Three leagues and a half to the eastward of the *Gulf of Salona* is the *Bay of Aspro-spitia*, the port or landing-place of *Livadia*, the town of that name standing far inland. *Livadia* is the capital of a province, and most singularly constructed on the side of a steep declivity, some of the houses being completely raised upon the top of others. Near it is the *River Hercyna*, which flows from a rock about 300 feet high, and forms a stream 50 feet wide, falling into the *Gulf at Aspro-spitia*. The town consists of about 1000 houses, and wears the appearance of decay; the streets are narrow, and the buildings badly constructed; but there is a considerable commerce carried on, uniting the produce of *Thessaly*, *Attica*, and *Boeotia*. Before the town is a beautiful valley, watered by the streams of the *Hercyna*; and behind it are the towers and pinnacles of an old *Castle* in ruins. Here, to the northward of the town, is the celebrated *Cave of Trophonius*.

About 20 miles to the E. S. E. (*S. E. $\frac{1}{4}$ E.*) of *Aspro-spitia*, is the *Port of Livadostro*; and further on, at the extremity of the *Gulf*, is *Porto Germano*; both these are places of trade, but have little foreign traffic.

MOREA. We now enter upon the confines of the *Morea*, which is a kind of peninsula, situated to the southward of *Greece*, and connected to it by the *Isthmus of Corinth*, being in all other directions surrounded by the sea. Its form is somewhat oblong, and much indented with bays and gulfs. Its breadth, from the *Castle Tornese* to *Cape Skilli*, is 130 miles; and its length, from the *Morea Castle* to *Cape St. Angelo*, is nearly 150 miles. The general aspect of the country is mountainous, but beautifully diversified with hills and vallies; and though greatly fallen from its ancient prosperity, is yet extremely fertile, and capable of an increasing production; so that, under a free and industrious population, it might soon become one of the richest countries in Europe. At present, such is the insecurity of property, and so deficient the industry of the natives, that it hardly supplies their limited wants. There are many rivers, the principal ones being the *Eurotas*, the *Alpheus*, and the *Pamisos*; but the names of these are now changed: the *Eurotas* is called the *Iris*, or *Basilipotamos*; the *Alpheus* the *Carpon*; and the *Pamisos* the *Pirnatza*. There are no roads. The population, which formerly was computed at several millions, is now reduced to about 300,000, a number totally insufficient for the cultivation of the land. Yet the soil is luxuriant, and in its wild and uncultivated state produces groves of orange, lemon, and mulberry trees, with numerous other fruits, plants, and vegetables. Cattle are scarce, and the breed of most domestic animals much degenerated; but sheep are abundant, and produce the finest wool. The principal produce of the *Morea* consists of corn, olive-oil, wine, silk, cotton, wool, honey, bees-wax, and fruit. The climate is healthy, and is a medium between the scorching heats of *Egypt*, and the freezing cold of the northern parts of Europe: the Winter comes on with rains and thunder, the cold beginning to be felt about December, but still more so in January: in February vegetation returns, and Spring commences early in March: Summer continues from May to October, and this is the period when the *Morea* is considered to be most unhealthy.

CORINTH. The *Bay of Corinth*, upon the banks of which, about $1\frac{1}{2}$ mile inland, stands the remains of this once famous City, is on the southern shore of the *Gulf of Lepanto*. The town is still of considerable extent, but the houses are scattered in groups, with corn-fields and gardens between, appearing more like a village than a city. The traces of its ancient walls are still discernible; also the canal by which *Nero* intended to connect the two Gulfs. The *Castle* is yet strong, and surrounded by a wall, two miles in circumference. It is situated upon the *Acro-Corinthus*, a very high mountain to the southward; but being strictly guarded by Turkish jealousy, its interior is very little known. The modern town consists of about 1300 houses, and the population has been estimated at 4000: there are six Greek Churches and three Mosques. Near the sea stands the Custom-house, and on the borders are the vestiges of its ancient walls. At the S. western extremity of the town are eleven columns of *Doric* architecture; these are remnants of great antiquity, and though

of stone, are covered over with a sort of stucco, giving them the appearance of Egyptian granite. To the northward of the market-place are the vestiges of a Bath or Gymnasium. Formerly there were two harbours; one of these forms the present port, where are still the remains of an ancient pier; the other was situated in the *Gulf of Egina*, and called *Kenchreas*, now little frequented. In the *Gulf of Lepanto*, particularly about the *Bay of Corinth*, the north and south winds are seldom troublesome; the high mountains that enclose it in these directions, rendering it a perfect basin. About N. W. (N. N. W. $\frac{1}{2}$ W.) from *Corinth*, distant 12 leagues, is the village or town of *Vostitza*, before mentioned, with about 60 houses; it stands half a league from the sea, on the declivity of a mountain, and has several ruins about it.

In advancing from the eastward, towards the mouth of the *Gulf of Lepanto*, you will observe the *Point of Drepano*, off which a reef runs out a considerable way; this must be guarded against, by giving it a wide berth in passing. W. S. W. $\frac{1}{2}$ W. (W. $\frac{1}{2}$ S.), distant 1 $\frac{1}{2}$ mile from *Point Drepano*, is the *Castle of Morea*, 5 miles S. S. W. $\frac{1}{2}$ W. (S. W. $\frac{1}{2}$ S.) from which is the *City of Patrass*.

PATRASS, by the Turks called *Badra*, is situated in latitude $38^{\circ} 14' 25''$ N., and longitude $21^{\circ} 46' 20''$ E., having a population of 12,000; it stands in a plain, and the land rises behind it to a small eminence, upon which a *Castle*, with a battery, is erected. In the interior the land mounts up to a great height; but about the environs of *Patrass* it is low, marshy, and unhealthy. The town is ill-paved and dirty, there being only one street that can be called good, and but few houses built of brick. The monuments of antiquity are nearly all swallowed up in the lapse of ages: only a part of a Doric frieze, and a few small capitals of the Ionic and Corinthian orders, are now visible; but to the westward of the City, on the beach, is a well, the former oracular fountain dedicated to Ceres. In the environs is a small chapel dedicated to St. George.

Patrass is well situated for commerce, being a central point for *Liadia*, the *Ionian Islands*, and the *Morea*. The port is a little to the northward of the town; but that part which fronts the town is unsafe, and exposed to heavy seas, especially during the winter months: vessels therefore go a little further up the *Gulf*, where there is a mole or quay, and where they can lie close to the wharf. The exports are chiefly currants, oil, wine, honey, wax, silk, and skins; and the trade with *Corfu*, *Zante*, *Trieste*, &c. is very considerable. Consuls from the different States of Europe commonly reside here.

From *Patrass* the land sweeps in a circular direction to the westward, towards *Cape Papas*, in latitude $38^{\circ} 12' 40''$ N., and longitude $21^{\circ} 25' 30''$ E., the whole shore being low and sandy. Within this space are a few rivers, but no towns of any note. Off *Cape Papas* is a rocky reef, extending out to the northward full 1 mile; there are 3 fathoms on its extreme point, and very near it 14, 16, and 29 fathoms: vessels, in entering or departing from the *Gulf*, should steer wide apart, there being from 60 to 70 fathoms mid-channel, between *Cape Papas* and *Bakari*. *Cape Papas* is low, but rises, about 2 miles inland, to a great height.

From *Cape Papas* the coast stretches S. $\frac{1}{2}$ W. (S. by W. $\frac{1}{2}$ W.) $7\frac{1}{2}$ miles to *Ali Kali Bay*; here is a rocky point, behind which you will find a mineral spring, and near the Point is the *Konopoli Rock*. A sandy shore then continues in a S. W. $\frac{1}{2}$ S. (S. W. $\frac{1}{2}$ W.) direction, above eleven miles, to the little *River Anasata*, and then turns nearly West (W. by N.) to the landing-place at *Cape Klarenza*; here several rocks surround the Point, and render a near approach dangerous. On the summit of the *Cape* are some ruins, a Custom-house, and to the westward, the little rocky *Island of St. Giovanni*, near which are 5 fathoms, but no channel within it. In passing this *Cape*, you should keep at the distance of a mile, where you will find 29 fathoms, and further off, still deeper water. To the South (S. by W. $\frac{1}{2}$ W.) of *Cape Klarenza* is the *Castle Tornese*, in latitude $37^{\circ} 53' 45''$ N., and longitude $21^{\circ} 9' 30''$ E. This is an old Venetian fortress, situated on the summit of a high mountain; the land here is very lofty, and forms a remarkable headland, visible a great way off; this gently slopes down towards the sea, the ground around it being mostly foul; there is, however, a little creek under it, which occasionally affords shelter to small vessels. At its southern part, near *St. Nicolo*, is a spring of good water.

MONTAGUE ROCKS. Directly West (W. N. W. $\frac{1}{2}$ W.) from *Cape Klarenza*, distant $7\frac{1}{2}$ miles, and in a line between it and the northern part of the *Island of Zante*, are the *Montague Rocks*: the northernmost is even with the surface of the water, and the other has only 3 fathoms upon it; there are soundings all round them, and deep water at a little distance. Vessels coming through between *Zante* and *Cephalonia*, and

also between *Zante* and *Castle Tornese*, must be careful to avoid these dangers, which may readily be done by keeping always within 3 miles of the land.

From *St. Nicolo* a course S. E. $\frac{1}{2}$ S. (S. S. E. $\frac{1}{4}$ E.), fifteen miles, will carry you to *Cape Catakolo*; the coast between is low and sandy, bending in circularly, and forming what is usually called the *Bay of Tornese*. At the southern point of the promontory of the *Castle Tornese* is *Point Glossa*; and running into the *Bay* are several rivers, the principal one being the *River Pencus*, which is $4\frac{1}{2}$ miles to the E. S. E. (S. E. $\frac{1}{4}$ E.) of this *Point*. Four miles beyond the *Pencus* is the *River Gronta*, near which there are other springs; and further on are the *Ruins of Prigi*, and the *Village of Skaphidia*, from which the land becomes elevated, and projects to the southward. There is a rocky islet lying in front of a little cove, and another to the South, (S. by W. $\frac{1}{4}$ W.) of it, but further from the land, and having a passage with 4 fathoms between; there is also a rocky reef running out from the *Point of the Cape*, and behind it there is shelter from the N. W. and Westerly winds, but open to the south. Upon *Cape Catakolo* is the *Pondico Castro*, an old castle.

GULF OF ARCADIA. *Cape Catakolo* is in latitude $37^{\circ} 38' 12''$ N., and longitude $21^{\circ} 20' 0''$ E., and forms the northern point of the *Gulf of Arcadia*. This is a shallow and open *Bay*, extending to *Cape Konello* S. S. E. $\frac{1}{4}$ E. (S. by E. $\frac{1}{4}$ E.), a distance of 30 miles; the shore hollowing in to the eastward. About 7 miles E. by S. (E. S. E. $\frac{1}{4}$ S.) from *Cape Catakolo*, is the entrance to the *River Alpheus*, or *Carpon*, one of the largest rivers in the *Morea*. Between it and the *Cape* is a large lagoon, forming the fishery of *St. Giovanni*; while to the southward of the river is the *Village of Argolonizsa*, and near it the *Giagiapha* fishery; further on is the *Kaiapha* fishery. You will then pass the *Rivers Vero*, *Strovithi*, *Bouzi*, and *Kleidi*, and arrive at the *Dervish Aga*, and a village to the southward of it. S. S. W. $\frac{1}{2}$ S. (S. S. W. $\frac{1}{4}$ W.) from *Dervish Aga*, distant 5 miles, is the *Town of Arcadia*, the ancient *Cyparissa*, a place having little now to recommend it beside the beautiful scenery with which it is surrounded. W. S. W. $\frac{1}{4}$ S. (W. by S.) from the *Village of Arcadia*, distant 5 miles, is *Cape Konello*, in latitude $37^{\circ} 12' 0''$ N., and longitude $21^{\circ} 36' 30''$ E., the southern point of the *Bay of Arcadia*.

From *Cape Konello* the land winds round, and runs S. $\frac{1}{4}$ W. (S. by W. $\frac{1}{4}$ W.) to the *Island of Prodano*, which is about 2 miles long, and lies a mile off-shore, having a channel with deep water between them; the coast is clear all the way, and you will have from 4 to 11 fathoms close to the land. Inland a range of hills extends from *Arcadia*, the two highest of which are named *Mount Mali* and the *Condo Vouna*, and due East (E. S. E. $\frac{1}{4}$ E.) from the *Island Prodano*, $2\frac{1}{2}$ miles from the coast, is the *Town of Gargagliano*. You may anchor in the roadstead between *Prodano* and the main, opposite to the middle of the island, in 16 or 17 fathoms, only exposed to winds from the S. W.; but you must guard against the pirates which sometimes infest these seas. The island is uninhabited, and covered with a sort of heath, which, washed by the spray of the sea, imbibes a portion of its salt.

NAVARINO. Having cleared the *Island Prodano*, you may steer S. by E. $\frac{1}{4}$ E. (S. $\frac{1}{4}$ E.) for the entrance to *Navarino*. This is considered to be one of the best harbours in the *Morea*, and extends to the southward of *Old Navarino*, having the long narrow *Island of Sphagia* in front, which extends in a S. by E. (S. $\frac{1}{4}$ W.) direction for nearly 3 miles: the principal entrance is to the southward of this island, the passage being nearly a mile broad; but when in, the harbour widens to 2 miles, and its general depths, with the exception of two shoal spots, are from 26 to 12 fathoms. The *Town of Navarino*, or *Neo Kastro*, is on the south-eastern side of the harbour, and in latitude $36^{\circ} 52' 30''$ N., longitude $21^{\circ} 41' 0''$ E. The harbour is spacious, and capable of receiving a numerous fleet. The small or northern passage is between the *Island Sphagia* and *Old Navarino*; this channel was blocked up with vessels and stones, to protect the Turkish galleys in 1571, and will only admit boats: there is a part which may be forced across.

The *Town of Navarino* is surrounded by a wall, without any fosse or ditch; the citadel is built upon an eminence, and commands the harbour, but it is without ramparts or any outworks; there is a battery at the entrance. The houses near the harbour are tolerably well-built, the streets narrow, steep, uneven, and dirty; it is, however, a place of considerable commerce. Here are the remains of an ancient aqueduct, a fountain, and several marble pillars which now support the façade of the grand Mosque. *Old Navarino*, or *Paleo Kastro*, is supposed to have been built on the site of the *City of Pylos*, the birthplace of *Nestor*.

The great, or *Megalo Thoura*, entrance to the harbour is narrowed by a string of

rocks lying off the south part of the *Island of Sphagia*, the outermost and largest of which is called the *Island of Pylos*; there is an entrance between it and *Sphagia* with 7 fathoms water, but too narrow and intricate for general use: wherefore, in entering, you should go to the south of *Pylos Island*, and always borrow toward the starboard shore; and when within the entrance, run on, and anchor behind *Marathonisi*, or *Duck Island*, in from 15 to 10 fathoms. The best anchorage is said to be by bringing the *Castle on Duck Island* to bear W. N. W. $\frac{1}{2}$ N. (N. W. $\frac{1}{2}$ W.), distant about a quarter of a mile; the *Town* S. $\frac{1}{2}$ W. (S. by W. $\frac{1}{2}$ W.) nearly two miles; and the *South Point of Sphagia* S. S. W. $\frac{1}{2}$ W. (S. W. $\frac{1}{2}$ S.); the watering-place will then bear N. N. E. $\frac{1}{2}$ N. (N. E. by N.), distant half-a-mile; but do not come nearer to *Duck Island* than one cable's length. In running along the eastern shore of the *Isle of Sphagia*, which is all steep-to, you will encounter the *Sphagia Shoal*, a small spot of only 3 fathoms water. This bears from the centre of *Duck Island* W. by N. (W. N. W. $\frac{1}{2}$ N.), and at about the distance of 3 cables' length from the *Coast of Sphagia*: round it are 5, 6, and 9 fathoms, deepening at a little distance to 13, 14, 16, and 18 fathoms, forming a good channel to the westward or northward. *Pesili Bridge* kept open to the southward of *Marathonisi*, or *Duck Island*, will carry you clear to the southward of the *Sphagia Shoal*. A little to the eastward of the *Town of Navarino* is a port for small craft: here is the usual *Dogana*, or landing-place; also a cemetery, and the remains of an ancient subterranean aqueduct. Further to the northward is the *River Pesili*, over which is a bridge, and this is one of the customary places of obtaining fresh water; another will be found at the entrance of the *River Kurbek*, near the *Ruins of Jalova*. The land from the *River Pesili* to the *Sikia Channel* is one continued sandy beach; and at its northern part, to the eastward of *Paleo Kastro*, is the lake and fishery of *Orman Agha*.

To the southward of the great channel, or *Megalo Thoura*, are the two little rocky *Islands of Aio Nikolo*, between which and the shore is no passage for shipping. Behind these, inland, is *Mount Koriphasio*, 1627 feet high; on its summit stands the *Chapel of St. Nikolo*. From *Navarino* a road runs, in the direction of the shore, towards the *Town of Modon*. In coming from the southward for this port, vessels commonly take in a pilot at *Sapienza*.

MODON. About four miles and a half from *Navarino* is the *Town of Modon*, once a place of considerable commerce. *Modon* is built at the foot of a mountain, on a slip of land which projects into the sea; the town is ill constructed, and now falling into decay, having suffered considerably by the invasion of the Russians in 1770. Near the *Town*, and at the *Point* next *Sapienza*, is a *Lighthouse*. Nearly opposite to the entrance to *Modon*, in latitude $36^{\circ} 48' 0''$ N., and longitude $21^{\circ} 32' 0''$ E., there is said to be a shoal of 7 fathoms; it appears on the Charts, but wants confirmation. Another shoal of only 2 fathoms, and therefore extremely dangerous, is placed to the southward of *Sapienza Island*, in latitude $36^{\circ} 36' 0''$ N., and longitude $21^{\circ} 41' 30''$ E.; it is marked "doubtful" on the Charts, and its existence is yet to be ascertained.

THE ISLAND OF SAPIENZA lies with the *Point of Modon* in a true north and south direction, being $4\frac{1}{2}$ miles in length, and of irregular breadth; its southern point being in latitude $36^{\circ} 42' 30''$ N., and longitude $21^{\circ} 41' 0''$ E. It is moderately high, and rises gradually up towards the centre: at its S. E. side is the little *Harbour of Longone*, having before it an island of the same name, situated at the middle of its entrance; you may sail into *Port Longone* on either side of the above island. The north side of the *Island Sapienza* forms the southern part of the *Harbour of Modon*, wherein you may anchor, before the town, in 5 and 6 fathoms water, on clean ground, and well-sheltered; but there is no anchorage until you get within the *Castle and Lighthouse*. In going to the above anchorage, you should keep nearer to the *Island Sapienza* than the *Light*, in order to avoid the spit which runs off the latter: you will not find ground until you get very near the entrance of the channel, when you will have 60, then 56, and between the *Point* and *Island* 13 fathoms; after which you will sink into 20 fathoms: then haul up to the northward for the anchorage, leaving the *Lighthouse* on your larboard side. The greatest depth of water between *Sapienza Island* and the main is 22 fathoms; but on the *Sapienza* side, where the ground is clean and good, you will have from 15 to 5 fathoms, the latter depth being close in to the shores of *Sapienza*; or you may carry a hawser on to the land. There is a white pathway from the sea reaching to the summit of the mountain; opposite, or rather to the eastward of it, is also good riding; or further out in 19 or 20 fathoms, the *Castle* bearing N. W. $\frac{1}{2}$ N. (N. N. W.); the *N. W. Point of Sapienza* W. N. W. $\frac{1}{2}$ W.

N. W. by W.); and the *Eastern Point of Sapienza S. E. $\frac{1}{2}$ S. (S. S. E.)* Pilots are to (e obtained at this island for the *Archipelago* and other parts.

Kabrera lies to the S. Eastward of *Sapienza*, and is of a similar length and direction, but somewhat broader; this, at a distance, appears like a high and circular mass of land, serving to point out the adjacent harbours. Between *Kabrera* and *Sapienza* is the small *Island of Santa Maria*, having a *Castle* upon it; there is a good channel on either side of it. Vessels from the southward may steer North (*N. by E. $\frac{1}{4}$ E.*), passing between the *Islands Sapienza* and *Kabrera*, and having passed the little *Island of Santa Maria*, sail rather more north-westerly for the anchorage of *Modon*; or having entered the channel to the eastward of *Kabrera*, proceed to the northward of that island: in either case there is plenty of water for the largest ship, and no danger. Small vessels may run to the further end of the *Gulf*, and anchor near the *Venetian Tower*, or in the little *Port of Lambro*; but in the latter case they must be careful to avoid the *sunken rock* lying before it. *Kabrera's S. E. point* is in latitude $36^{\circ} 40' 0''$ N., and longitude $21^{\circ} 47' 30''$ E. The land from *Modon* to *Cape Gallo* is all high and mountainous, and the shores generally steep.

VENETICO. This is a small but remarkable island, about one mile long, and detached from *Cape Gallo* by a channel half-a-mile wide: there are some rocks off its southern end, called the *Formigas*, or *Ants*; these lie at the distance of a mile from the island, and have deep water around them, so that a vessel may easily pass between them and *Venetico*, in 31, 34, and 39 fathoms, or between *Venetico* and *Cape Gallo* in 16 and 19 fathoms: give the shore next to the island a berth, on account of a little reef which runs from it, and steer nearer to the *Cape*, and there is no danger.

Cape Gallo is in latitude $36^{\circ} 41' 20''$ N. and longitude $21^{\circ} 54' 56''$ E., lying E. N. E. $\frac{1}{2}$ E. (*East*) from the S. E. point of the *Island Kabrera*, distant $6\frac{1}{2}$ miles. The land from *Cape Gallo* runs N. E. $\frac{1}{2}$ N. (*N. E. $\frac{1}{2}$ E.*) to the *Point of Koron*. Directly east (*E. S. E. $\frac{1}{2}$ E.*), distant 5 miles from *Cape Gallo*, in latitude $36^{\circ} 41' 33''$ N., and longitude $22^{\circ} 1' 0''$ E., is said to be a shoal with 12 fathoms water upon it: this is marked upon the Charts, but rests upon very doubtful authority.

THE GULF OF KALAMATA, or KORON. *Koron* is an old sea-port, and was formerly a town of considerable commerce, having a strong fortress, and standing upon a point of land which juts out to seaward; it was seated at the extremity of the point, at the bottom of a gently sloping mountain, and beneath it lay the town; but both fortress and town are now nearly obliterated. *Cape Koron* is 7 miles from *Cape Gallo*, and forms the S. W. point or boundary of the *Gulf of Koron*, or, more properly, *Kalamata*, which here, from *Cape Koron* to *Cape Kefali*, bearing N. E. $\frac{1}{4}$ E. (*E. N. E. $\frac{1}{2}$ N.*), is almost 10 miles wide. The best anchorage near the *Town of Koron* is about a mile from the town, in from 20 to 15 fathoms, over a bottom of fine light sand, the remains of the fortress bearing S. by W. $\frac{1}{4}$ W. (*S. W. by S.*), the *Dogano*, or landing-place W. N. W. $\frac{1}{4}$ W. (*N. W. by W.*), and *Cape Grosso*, the southernmost land in sight, S. E. $\frac{1}{4}$ S. (*S. S. E. $\frac{1}{2}$ E.*). Wood may be had here at a moderate price, and good water in any quantity. The best watering-place is about 2 miles to the northward of the town; but there is a more spacious one about one mile further, opposite to a good anchorage: both these places are at the entrances of little rivers, and your way to obtain the water will either be by rolling your casks into the water, or, in moderate weather, by a very long hose from the boats. When the wind is off the land, the casks will be rafted off with ease; but with a stiff sea-breeze, it will be better to have a grapple in your boat. Should there be a rise, or considerable swell of the sea, the water at the northernmost river will become somewhat brackish; you must then roll your casks higher up. Meat, fruits, and all other necessary refreshments are here in abundance.

In proceeding along shore towards the head of the *Gulf*, which is 13 miles beyond *Koron*, you will pass *Kastella*, *Longa*, *Polistari*, and *Petuladi*, and also the *Rivers Sunart* and *Pyrnatza*; the latter being one of the most considerable rivers in the *Morea*, but without water sufficient at its entrance to float a good-sized boat, although it has an abundance of fish, particularly lobsters of extraordinary magnitude. About 2 miles from this river is the little *Town of Nisi*, or *Nissi*; to the eastward of which is the *Town of Kalamata*, from which the *Gulf* is now frequently named. In sailing up this *Gulf*, it is observed that the western shores present the aspect of a fertile country, covered, within 2 miles of the sea, with beautiful olive-grounds, which, though not well-cultivated, are interesting; while on the eastern side you have the sterile and black appearance of high craggy mountains, altogether rugged and cheerless. On advancing towards the *Gulf*, the most conspicuous leading-marks will be the

Islands of Sapienza and Cabrera, already described: there are also two high peaks visible to the northward of *Koron*, resembling haycocks; and at the bottom of the *Gulf* a very high mountain, seemingly separated from the main.

Kalamata is a modern but populous town, standing at the head of the *Gulf*, in latitude $36^{\circ} 59' 45''$ N., and longitude $22^{\circ} 8' 25''$ E. It is situated about $1\frac{1}{2}$ mile inland, near the *River Apseria*, and has a population of about 5000, chiefly Mainotes, who possess this province from hence to *Cape Matipan*: these people are spread over the mountainous tract of *Taygetus*, between *Kalamata* and *Kolokythia*, and have never submitted to the Turkish Government; secured in their independence no less by their extreme poverty, than by their inaccessible mountains. There is anchorage before the landing-place at *Kalamata*, in from 4 to 14 fathoms, but exposed to the southerly winds; and the water in the middle of the *Gulf* is almost unfathomably deep. Two leagues S. by E. from the landing-place at *Kalamata*, are the ruins of *Kitries*, formerly the principal residence of the Mainotes: there is anchorage close in to the land, somewhat sheltered from the south by *Cape Kephal*; this is high land, and the shores around it are steep-to, there being 71, 209, and 305 fathoms at a little distance to the S. westward.

From *Cape Kephal* the land runs S. E. $\frac{1}{2}$ E. (*S. E. $\frac{1}{2}$ S.*) towards *Point Stupar*, nearly 8 miles: this *Point* has a reef of rocks running out from it, which must have a wide berth in passing. Between, and near 3 miles to the northward of *Point Stupar*, is the *Village of Kardamyla*, consisting of about 100 houses; there is a small islet at its entrance, behind which is a cove. To the east (*E. S. E. $\frac{1}{2}$ E.*) of *Point Stupar*, $2\frac{1}{2}$ miles inland, is the *Town of Eyrgos*, or *Pyrgos*. Ten miles S. S. E. (*S. $\frac{1}{2}$ E.*) from *Stupar* is the *Port Djimova*, or *Vitylo*, the best port on the eastern side of the *Gulf of Kalamata*, running in a full mile and a half, and being at its entrance nearly one mile broad, but becoming narrower as you advance within it. On approaching the *Port*, you will get no soundings until you near the land; for Captain Smyth found 120 fathoms at a short distance from it, and a league further out, 410 and 479 fathoms. When within the harbour, you will have 10, 8, and 4 fathoms: the course into it is E. N. E. $\frac{1}{2}$ E. (*East*); you may boldly run in, for there is no danger. On the northern side you will see three or four round hummocks, and also another on the side of a mountain to the southward: there is a high round hill, seemingly in the middle of the harbour, which will then be fairly open. The land generally about the harbour is high and barren.

MAINA. From *Djimova* the coast runs S. $\frac{1}{2}$ W. (*S. by W. $\frac{1}{2}$ W.*) to *Cape Grosso*, being irregular, rugged, and mountainous. About 2 miles before you reach the *Cape*, you will see the little *Port of Maina*, within which is a village with about 100 houses: this is an ancient place, inhabited by the Mainotes, and formerly called *Messa*. From *Cape Grosso* the land wears the same barren and mountainous appearance until you reach *Cape Matapan*, in latitude $36^{\circ} 21' 30''$ N., and longitude $22^{\circ} 28' 0''$ E. *Cape Grosso* is steep-to, and has 150 fathoms very near the land: 1 mile further out are 220, and at the distance of 4 miles off, Captain Smyth could find no ground with a line of 300 fathoms. *Cape Matapan* terminates in a high, steep, pyramidal point, at the base of which is a cavern, apparently blackened by the fire of former volcanoes. Upon its summit are the ruins of an ancient temple, supposed formerly to have been dedicated to Neptune: near the *Point of the Cape* are 90 fathoms water. In advancing from the westward towards the *Cape*, you will see the *Island Renesta*, bearing from the *Cape* N. W. by W. $\frac{1}{2}$ W. (*N. W.*), distant 4 miles, having some rocks extending from it to the southward; you must carefully avoid these, for they have deep water close to them: the distance between them and the shore is $2\frac{1}{2}$ miles; and in the channel between are from 73 to 149 fathoms. About 2 leagues to the northward of *Cape Matapan*, the land, for a small space, falls down, and then rises again to a great height, so that at a distance you will imagine it divided from the main and *Cape Matapan*, to form an island; but this appearance is soon rectified on your nearer approach.*

* S. W. $\frac{1}{2}$ S. (*S. W. $\frac{1}{2}$ W.*) from *Cape Matapan*, distant 7 miles, there is said to be a shoal of 8 fathoms water; it is placed on the Charts in latitude $36^{\circ} 18' 0''$ N., and longitude $22^{\circ} 23' 0''$ E. S. by E. (*S. $\frac{1}{2}$ W.*) from the same point, distant 19 miles, in latitude $36^{\circ} 3' 30''$ N., and longitude $22^{\circ} 34' 0''$ E., is another shoal: and in latitude $36^{\circ} 21' 45''$ N., longitude $20^{\circ} 18' 30''$ E., is a third. This latter is reported to be a rock, 70 feet in length, and from 20 to 30 in breadth, with only 9 feet water over it, and therefore very dangerous: these are all placed upon the respective Charts, but rest solely on report, and want confirmation.

THE GULF OF KOLOKYTHIA. Having rounded *Cape Matapan*, about which there is no anchorage, on account of the great depth of water, you will enter the *Gulf of Kolokythia*, which is bounded on the west by the *Braccia*, or *Promontory of Maina*, and on the east by the south-eastern *Peninsula of the Morea*. On the *Maina* side of this rugged land there are three harbours, *Ports Quaglia, Kolokina, and Pagagna*. The first of these is situated about a league from the *Point of the Cape*, and is called *Port Quaglia*, or *Kallio*; here a vessel may ride well-sheltered from north or westerly winds, but open to the south and east. Eleven miles further to the northward there is another place, similarly protected on the north and west; this is called *Port Kolokina*, not far from which stands the *Town of Kolokythia*, which gives its name to the *Gulf*. There is a shoal of 4 fathoms off the entrance of *Kolokina*, which it will be requisite to guard against.

Port Pagagna, or *Port Scutari*, is the largest and best of these harbours, being divided from *Kolokina* by an elevated point of land, about $1\frac{1}{2}$ mile broad. Here vessels may lie safe with all but S. E. winds. The harbour is circular, half-a-league broad, and has a depth of from 20 to 7 fathoms within it. It may be known by the southern point having a reddish appearance, and by an old castle on its northern side. There will be no danger whatever in entering: run directly towards the red-looking point, and steer between it and the castle, anchoring wherever you chuse, in from 16 to 6 fathoms. The *Village of Scutari* stands inland, and will be seen, situated at the bottom of the Bay, to the N. westward.

Maratonisi is an ancient village, standing on the main, about 2 leagues N. & E. (N. N. E.) from *Pagagna*; it is built upon a huge rock which overhangs the sea, and has about 500 houses, chiefly stone, one story high, having a tower and a square castle on the summit of the highest part of the rock. There is a small islet about $\frac{1}{2}$ mile to the northward of the *Point of Maratonisi*, which forms a kind of roadstead, sheltered from northerly and westerly winds. A little to the northward of this islet is what is called *Port Phinaki*, with several rocks about, resorted to by small coasting vessels occasionally, but by no means a secure anchorage. This shore, all the way from *Cape Matapan*, has very deep water a little distance from the land; so much so, that Captain Smyth had 276 fathoms about a mile off the entrance of *Port Quaglia*, 319 fathoms a little further, and E. N. E. (E. & N.), distant 7 miles from it, there was no ground at 350 fathoms.

We now advance towards the head of the *Gulf*: here several rocky islands lie off the *Point of Trinisia*; these therefore are named the *Trinisia Rocks*: they are near the land, and have between them no passage for shipping. A little inland is the village of the same name. A sandy beach now runs E. (E. S. E. & E.) for 8 miles, to the *Tower of Cecina*, within which space some rivers empty themselves into the *Gulf*: the principal of these is the *Eurotas*, or *Vasili Potamo*, navigable for barks and large boats some leagues into the interior of the country, until crossed by a rocky ledge. On the banks of this river stands the *Town of Misitra*, on the declivity of a hill at the foot of *Mound Taygetus*, or *Pendedactylon*, a town formerly of very considerable importance, with a population of 15,000, and producing 75,000 lbs. of silk annually; but latterly it has much fallen into decay and been neglected, its present inhabitants not amounting to above one-third of its former population. Its environs are extremely fertile, and generally well-cultivated; it contains several fragments of ancient sculpture, being the relics of the once renowned *Sparta*, which city formerly stood about 2 miles from the present modern *Town of Misitra*. On the banks of the *Eurotas*, a little way inland, is *Vasili Castle*, standing on its western side, about a mile from its entrance.

There is anchorage all the way from the *Eurotas* to *Cecina Tower*; but though the depth of water is only 6 or 7 fathoms, it is too open to lie there long. Near *Cecina Tower* is a little rivulet, and behind it the high *Mountain of Korkula*.

S. by E. (S. & W.) from *Cecina*, about two leagues, is the lofty *Promontory of Rupina*, behind which is the port or harbour, where a few vessels may ride, sheltered by the land on the west, north, and east, but open to the south; here you will anchor in from 7 to 11 fathoms. If you intend going into this place when coming from the southward, you will readily recognise it by the long even point, behind which two round hills rise up, this being the S. W. point or entrance to the Port: steer right along-side of this, and anchor. On the eastern side of the Port, and opposite to the *Point of Rupina*, is the little rivulet of *Isapo*; 2 miles S. by E. (S. & W.) from which is the little Hamlet and *Point of Archangel*. From this latter point of land the coast runs S. E. & S. (S. S. E. & E.) for 8 miles, to the *Point and Tower of Lavcu*, which is separated from the *Island Servi* by a small strait or channel, connected to the main by a

rocky reef, over which there now is no passage. In leaving the *Point of Archangel*, you will see the little *Island Klaronisi*, with some rocky islets about its southern part : small vessels sometimes run in here, between the island and the main, for a temporary shelter.

THE ISLAND SERVI. This island was once joined to the main, and, as before observed, is now connected to it by a reef, over which there is no passage : it is a hilly island, and of a triangular form, running out to the S. W. and S. E. with two *Points*, and forming, between these *Points*, an open roadstead, called *Saracenco*. To the north-eastward of *Servi*, and between the island and the main, is a broad *Bay*, now called the *Bay of Vatika*, from a town of that name, which stands, somewhat elevated, a little way inland on its eastern part. The main land is high all round, and forms an amphitheatre of mountains ; the highest of these is called *Mount Aspro*. This bay is, from the *Island Servi*, full $3\frac{1}{2}$ miles broad, and has deep water within it ; there is anchorage in different parts near the shore, particularly off the *Tower of Porro*, on the N. western side, where the water shoalens from 30 to 12 fathoms. From abreast of the *Village of Vatika*, round south-easterly towards *Mount St. Elias*, being all the way encumbered with rocks, it is high and irregular, and should always be kept clear of ; having got so far as *St. Elias Church*, your course to *Cape St. Angelo*, or *Cape Malea*, will be direct East (*E. S. E. & E.*) 5 or 6 miles, clear of all danger whatever ; three quarters of a mile off the *Cape* are 72 fathoms, and 2 miles off 309 fathoms. *Cape St. Angelo* is in latitude $36^{\circ} 26' 0''$ N., and longitude $23^{\circ} 19' 30''$ E. Off the S. western shore of *Servi* there are some rocky islets, with passages for boats between them ; but this part of the island is too much exposed to the northerly winds to admit of even small vessels remaining there for any length of time. The S. western *Point of Servi*, *Point St. Maria*, is in latitude $36^{\circ} 27' 15''$ N., and longitude $22^{\circ} 55' 0''$ E.

THE ISLAND OF CERIGO. This was the ancient *Cythrea*, and is, with *Servi* and *Cerigotto*, comprised under the denomination of the *Ionian Islands*. It is separated from *Servi* by a channel $\frac{1}{2}$ miles broad, and of great depth. Its coasts present a dreary assemblage of rocky precipices, rising up to sharp-pointed eminences ; and the interior of the island is mountainous and rocky, being anciently eminent for its marble of *Porphyry*. It lies in a direction from *Cape Spati* to *Cape Capella* S. by E. $\frac{1}{2}$ E. and N. by W. $\frac{1}{2}$ W. (*S. & E. and N. & W.*), being in length 17 miles, and in breadth, from *Elephonsa* to *Dragonera*, 11 miles. The island abounds with hares, partridges, woodcocks, and turtle-doves ; and its vallies produce wine, oil, melons, flax, cotton, and silk, besides corn sufficient for the consumption of the inhabitants : there are great quantities of sheep and goats, but wood is a scarce article ; the mountains are arid, and little cultivated. In Autumn it is remarkable for the immensely numerous bodies of quails which traverse the island on their way to the shores of Africa. Its population is about 9000 ; and although heretofore seldom visited, unless by vessels waiting for a wind to go into or out of the *Archipelago*, yet since it has been placed under the protection of the British Government, it will be more commonly resorted to for the purposes of commerce, or the conveniences of shelter. In advancing from the westward, *Cerigo Island* will appear joined to the main land ; for the continental shores, as well as *Cerigo*, are high, and you will not, until you get near the island, discover the northern channel between, which is fair, deep, and clear of danger. The oil produced at this island is exquisite, being esteemed by far the best among all the islands, and therefore in great request. The fisheries are also very productive, to which the inhabitants are indebted for their chief subsistence. The climate is temperate and healthy, but subject to violent gusts of wind, which often occasion considerable damage ; sometimes destroying whole vineyards, and tearing up the trees on their plantations. This island at present is adopted by the British as a place of exile.

Cape Spati is in latitude $36^{\circ} 22' 30''$ N., and longitude $22^{\circ} 56' 30''$ E., having a chapel on its extremity, and near it, *Point St. Nicolo*, on the western side of which is anchorage in from 28 to 14 fathoms, or further in, and near the shore, in 9 or 8 fathoms ; but you must beware of a *sunken rock* which lies herabout. In proceeding along the western coast of the island, there is no anchorage which can be recommended. Off *Point Karavougia* you will perceive a rock or two above water, but no passage between. There are also some rocks to the southward of *Point Platanes*, 5 miles S. S. E. from which are the *Village* and *Port of Modari*, with some little islands in front, and further on, the little *Port of Lindo* ; but, as before observed, there is no safety in any of these anchorages. Some small islands, *Elephonsa* and *Strongila*, lie off the S. western part of the island, having a channel within them with 24 fathoms water ; and further on is *Port Grugnia*.

KAPSALI. On the southern coast of the island is the *Town of Kapsali*, which is the

capital, and contains 5000 inhabitants: but the streets are badly constructed, and the town stands upon the declivity of a rock, with an open *cove* for shipping. Here is excellent anchorage, opposite *Kapsali*, in 20 fathoms, the east point of the *cove* bearing E. $\frac{1}{4}$ S. (E. S. E.), and its western point S. S. W. $\frac{1}{4}$ W. (S. W.), being well sheltered from north and westerly winds, but open to the South and S. E., which latter winds blow directly in. In this *port* or *cove* you will see a great *Castle* standing upon an eminence; steer right in for it, and then anchor.

Ovo, or *Egg Island*, lies in latitude $36^{\circ} 4' 45''$ N., and longitude $23^{\circ} 0' 30''$ E. It is a high *rock*, and with attention will always be seen and avoided, being of a conical form, and nearly 500 feet high. It lies directly south (S. by W. $\frac{1}{4}$ W.) from the *Port of Kapsali*, distant 3 miles: off its northern point is a little *rock*; it is otherwise steep all around. On this *rock* are found the *conchilia*, a shell-fish, which produces the red colour, used by the *Tyrians* of old, for dyeing their cloths.

East (E. S. E. $\frac{1}{4}$ E.) from *Port Kapsali*, distant $2\frac{1}{2}$ miles, and N. E. (E. N. E. $\frac{1}{4}$ N.) $3\frac{1}{2}$ miles from the *Ovo Rock*, is *Cape Capella*, the southern *Point of Cerigo*, in latitude $36^{\circ} 6' 45''$ N., and longitude $23^{\circ} 4' 0''$ E. E. S. E. $\frac{1}{4}$ E. (E. S. E. $\frac{1}{4}$ S.) from *Cape Capella*, distant $2\frac{1}{2}$ miles, lies the inner of two little *rocky islets*, called *Kouphenisi*, or the *Baskets*; there is a passage between them, and deep water all round.

N. by E. (N. N. E. $\frac{1}{4}$ E.) from *Cape Capella* is the *Promontory of St. Nicolo*, and between them the *Bay of St. Nicolo*, within which is anchorage with from 30 to 7 fathoms, sheltered from northerly and westerly winds by the mountains inland, upon which you will readily perceive two *towers*: one of these is called *Paleo Castro*, and is supposed to have been erected upon the site of the former *Town of Menelaus*; it is in ruins, and has near it the remains of the *Bath of Helen*. But you should not be caught there with winds from South or S. E., for these blow directly in, and will endanger your being driven on shore. When the eastern point of the island is brought to bear E. N. E. $\frac{1}{4}$ E. (about East), and the southern point S. by W. (S. S. W. $\frac{1}{4}$ W.), you will be in the best part of the road, and have 20 fathoms water.

Off the east end of *St. Nicolo* lie the two *Dragonera Islands*; the southernmost one is connected to *Cerigo* by a narrow ridge of sand, but the northern one has deep water all round it. There is good anchorage under their shelter, but especially under the northernmost, for there you will be in readiness to sail out with any wind: you may ride with an anchor to seaward, and a fast on the northernmost end of the island, in 20 or 22 fathoms. Two and a half miles to the northward of this island is the *Island of Sedro*, with a small *rocky islet* lying off its southern point: the coast from hence to *Cape Spati* is irregular, steep, and rugged; about midway between is the little *Village of Pelagia*. There are soundings all along the shore, and at the distance of 3 miles from the land, the depth increases to 194 fathoms; while opposite *Sedro*, at about a similar distance, no ground was obtained by Captain Smyth with 150 fathoms.

CERIGOTTO. This is a narrow island, $4\frac{1}{2}$ miles long, lying S. S. E. $\frac{1}{2}$ E. and N. N. W. $\frac{1}{2}$ W. (S. by E. $\frac{1}{4}$ E. and N. by W. $\frac{1}{4}$ W.), bearing S. E. $\frac{1}{4}$ S. (S. S. E.) from *Cape Capella*, distant $16\frac{1}{2}$ miles. This is almost an uninhabited island, and was formerly used as an asylum for criminals, and a resort for pirates. There is a little rivulet at its north-eastern part, where are two small *rocks* above water, called the *Potami Rocks*. A similar *rocky islet* lies off its northern end; and between 2 and 3 miles to the northward of *Cerigotto* are three widely detached *rocks*, named *Nautilus*, upon which a sloop of war was lost in the year 1809, *Porretti*, and *Porri*: between the two former is a *rock* under water; and to the northward of *Porri* is a shoal of 4 fathoms. All round this *rocky islet* there is deep water, and a good channel between the *Nautilus* and *Cerigotto*; but they may all be easily avoided by keeping within the distance of $1\frac{1}{2}$ mile of *Cerigotto*, or steering 5 miles off, keeping nearly in mid-channel between *Cerigo* and *Cerigotto*. *Porri* is in latitude $35^{\circ} 56' 0''$ N., and longitude $23^{\circ} 15' 15''$ E., and bears from the northern *Point of Cerigotto* N. $\frac{1}{4}$ W. (N. $\frac{1}{4}$ E.). *Cape Apolitara*, the southern *Point of Cerigotto*, is in latitude $35^{\circ} 49' 15''$ N., and longitude $23^{\circ} 18' 0''$ E.

REMARKS ON THE WINDS. Vessels attempting a passage during the Summer, between *Cerigo* and the *Archipelago*, to the north-eastward, are frequently opposed by the *Etesian winds*, which blow from the N. E. and N. W. quarters: these are the monsoons of the *Levant*, which blow constantly during the Summer, and give to the climate of *Greece* so advantageous a temperature. At this season, the greatest part of the *Mediterranean*, but particularly the eastern half, including the *Adriatic* and *Archipelago*, are subject to N. westerly winds. During winter they become variable; but S. E. and S. westers frequently blow with great violence during the solstices, or longest and shortest days.

In *Greece*, particularly in the *Morea*, which is almost surrounded by the sea, the *Etesian winds* prevail about 40 days, preceded by the *Prodromi*, or *forerunning winds*, for 8 or 10 days, making in the whole nearly 50 days. The Summer *Etesia* in *Greece* and the *Morea* come from the N. W., and are equally beneficial to the soil and to its inhabitants, moderating the violent heats during the dog-days.

When the sun, on advancing towards the north, has begun to rarify the atmosphere of southern Europe, the *Etesia* of Spring commence in the *Mediterranean Sea*; these blow in *Italy* during March and April: their influence first is but slightly felt; but so soon as the earth becomes warmer than the sea, the current of air will move from the sea towards the land, and consequently produce westerly breezes.

In the Autumn the winds become variable, sometimes blowing from the sea towards the coast, and at other times the contrary. These frequent changes are attributable to the sudden alteration in the temperature of the sea and land; for, as the sun declines towards the Equator, the earth gradually cools again, subject to slight variations, either on earth or sea, which necessarily must produce variable winds in the *Mediterranean*, until some weeks after the autumnal Equinox.

Mr. Laurent illustrates the foregoing observations by observing that, "having passed *Cerigo*, when bound to the N. E., a violent north wind drove the vessel towards *Candia*. Here she was buffeted about a long time, but at last made and passed the *Islands of Milo, Thermia, and Joura*. Frequent calms foreboded the commencement of the *Etesian gales*, which were not long in making their approach: the black appearance of the sea in the horizon, and the ships descending the *Archipelago* before the wind, proved the necessity of preparing for the approaching gale. All on board were brisk and lively, the wind furious and contrary; but the *Port of Zea* was reached, and shelter taken therein."

The *Sirocco*, or *Schiroc*, which prevails in a different season of the year, is thus described by Mr. Galt: "Sailed from *Malta* in a Greek polacca, January 18th, 1810, for the purpose of proceeding to the *Island of Spetzia* in the *Gulf of Nauplia*; but on the next forenoon a *Levantine Schiroc* arose, and continued to increase for 24 hours, while, however, the vessel worked onward. On the morning of the 21st it blew a perfect hurricane, and the polacca bore away before the wind for a port in the *Adriatic*. At noon the sky appeared to be involved in a thick tumultuous smoke, and the vessel was suspended as it were on the curl of a vast wave; and although there was as little of the foresail spread as possible, she drove at a prodigious rate. When in sight of *Corfu*, the wind shifted to another quarter, and shelter was at length found in the *Harbour of Aulona*, 12 leagues more to the northward than that island." The calm which commonly presages an approaching storm, is at times so dead, that the face of the water is clear and smooth as a looking-glass; and on the coasts about *Smyrna* a long calm is commonly considered to be the sure forerunner of an earthquake.

SECTION XI.

THE SOUTH-EAST AND EASTERN COASTS OF GREECE, FROM CAPE ST. ANGELO TO THE NEGROPONT AND STRAIT OF DORO; WITH THE ADJACENT ISLANDS.

Variation, One Point and a Quarter West.

FROM CAPE ST. ANGELO, in latitude 36° 26' 0" N., and longitude 23° 12' 30" E., the land runs N. N. W. $\frac{1}{2}$ N. (N. $\frac{1}{2}$ W.) 3 leagues, to *Cape St. George*. About midway you will see the little *Chapel of St. Angelo*, having a rock before it, near the land. N. N. W. $\frac{1}{2}$ W. (N. N. W. $\frac{1}{2}$ N.) from *Cape St. George*, distant 4 leagues, is the *Town of Napoli di Malvasia*, or *Monembasia*, situated on a point of land projecting, out from the main, and appearing much like an island. Between *Cape St. George* and *Napoli di Malvasia* the coast hollows in, and is, all the way from *Cape St. Angelo*, steep

and rocky. About 4 miles before you come to *Napoli di Malvasia* there is a village, called *Agiolindi*, but no harbour.

MONEMBASIA was formerly a place of some consequence, and at present has a population amounting to about 2000, but it has little trade, and no harbour; while the roadstead before it is wholly exposed to all winds from the south and east.

From *Monembasia*, or *Napoli di Malvasia*, to *Cape Hieraki*, the course and distance are N. N. E. $\frac{1}{2}$ E. (N. E. $\frac{1}{4}$ N.), 8 miles; between them the land takes a circular direction, within which, about 3 miles to the northward of *Napoli*, are the *Ruins of Palæo Embasia*. From *Cape Hieraki* the coast trends to the North (N. by E. $\frac{1}{4}$ E.) to *Porto Botte* and *Keri*, the latter being distant 5 miles from *Hieraki*: when you get abreast of *Botte*, you will have opened the *Gulf of Nauplia*, or *Argos*.

CARAVI, FALCONERI, BELLO POULO. In your passage towards the *Gulf of Nauplia*, you will pass the *Islands Caravi, Falconeri, and Bello Poulo*: they lie wide apart from each other, and are occasionally seen as you sail along. *Caravi* bears from *Cape St. Angelo* nearly N. E. (E. N. E. $\frac{1}{4}$ N.), distant 28 miles, being in latitude $36^{\circ}46'23''$ N., and in longitude $23^{\circ}35'30''$ E. It is merely a barren rock, without verdure, being about 100 fathoms in circumference, and of a dark colour; appearing, when seen from a distance, like a sail. *Falconeri* is high, and somewhat larger than *Caravi*, but uninhabited: it is in latitude $36^{\circ}50'40''$ N., longitude $23^{\circ}53'0''$ E., and bears from *Caravi* E. N. E. $\frac{1}{4}$ E. (E. $\frac{1}{4}$ N.). *Bello Poulo* is about 2 miles in length, and of nearly the same dimensions in breadth, appearing like two round hills or islands: its shores, like those of *Falconeri* and *Caravi*, are steep all round, and may be passed on every side without any rock or danger: its northern point lies in latitude $36^{\circ}57'18''$ N., and longitude $23^{\circ}26'35''$ E.

THE GULF OF NAUPLIA, OR ARGOS. This is a wide and extensive *Gulf*, running in to the N. N. W. (N. $\frac{1}{4}$ W.) from *Port Botte*, 44 miles. On its western shores are many villages and rivulets, though none of any note; but on its eastern side are the *Islands of Spetzia*, within which, on the main, are the *Ports of Bizalti and Ververonda*, where vessels may find anchorage. Though the entrance to *Bizalti* is narrow, and there are some rocks under water lying off its starboard point, yet when you are fairly within it, you will find good riding in from 7 to 3 fathoms. There is anchorage also on the N. E. side of *Spetzia*, opposite to the town, in 10, 9, and 8 fathoms water, between the island and the main. *Spetzia* is about 5 miles in length, and is distant $1\frac{1}{2}$ mile from the main. To the S. eastward of it, and divided by a narrow channel, is *Spetzia Poulo*, or *Little Spetzia*, somewhat more than a mile long. Both islands are extremely well-peopled, and supposed to have above 4000 inhabitants. The larger island produces a little wine, and has a spring of tolerably good water near its centre. The town consists of 4 or 500 houses, and the natives have long been reputed for their skill and intrepidity in navigation. The *Gulf* at this part, opposite to *Spetzia*, is above 4 leagues in breadth, and continues so, with the exception of the *Islands of Hypile and Caronisi*, which lie off its eastern side, until you reach the *Isle of Tolon* and the *City of Nauplia*. Here a point of land runs out to the westward, upon the northern point of which the city is situated, in latitude $37^{\circ}33'50''$ N., and longitude $22^{\circ}47'30''$ E.

Nauplia, or *Napoli di Romania*, is admirably situated for commerce, and well defended, being termed the *Gibraltar of Greece*: heretofore it was the depôt for the principal produce of the country, and carried on a most extensive traffic in silk, oil, wax, wines, corn, cotton, and sponge; but this has of late years much declined, and at present its trade is confined to the mere necessities of life. The climate is unhealthy, and much subjected to the plague. There is, however, a good harbour, which is capable of accommodating a whole fleet of ships of war. Captain Frankland says, "the Bay of *Napoli* has excellent anchorage all over it; and there is a good harbour for small vessels inside of the *Island of Bourgi*. On its western side stands the *Acropolis of Argos*, with the ancient town at its foot, and near it the tomb of *Agamemnon*. There are some mills on the shore, and an excellent watering-place for shipping."

Count Pecchio, who visited this place in 1825, has given the following description of it. "After a 50 days' voyage, we finally cast anchor before *Napoli di Romania*. This city is seated at the foot of a gigantic and abrupt rock. The *Palamidi Castles*, which in appearance are impregnable, rest on its summit; a palm-tree raises its head above the turreted walls, like the banner of the climate. *Argos*, and its beautiful plain, in front of the *Gulf*; the snowy summit of the frowning *Taygetus* on the west; all the scenery around, render the view of *Napoli di Romania* one of the most picturesque in the world. But so soon as the stranger puts his foot on

shore, his enthusiasm ceases, the enchantment disappears: the narrow streets, the houses meanly built, the air heavy, and impregnated with fetid smells, strike him with disgust.

"The diversions of this capital consist in some ill-furnished coffee-houses, and cracked billiards; an evening promenade in a small square, overshadowed in the midst by a friendly and majestic plane-tree; and in the indulgence of an eager curiosity, constantly excited by news and anecdotes. The population is very fluctuating, as it depends upon contingencies; but may be fairly averaged at 15,000."

ARGOS. About $4\frac{1}{2}$ miles to the north-westward of *Nauplia* is the *City of Argos*. The modern town is very considerable, and the streets are disposed with more regularity than usual; the houses are principally of wood, with projecting porticoes, appearing light and airy; and the population may be about 8000. Scarcely a vestige of the old town is now visible, and the massy walls of the castle itself are in a state of rapid decay; but the environs of *Argos* are beautifully varied with the cultivation of corn, cotton, tobacco, figs, grapes, and rice, watered by the *River Xera*, the ancient *Inachus*.

The view from *Argos* has been much extolled. Mr. Galt says, "Before me lay the *Gulf of Argos*, on the west side of which, several *promontories*, like the side-scenes of a theatre, extended in successive perspective to a great distance; and on the east, the *City of Napoli di Romania*, with the abrupt cliffs near it, all glittering and vivid with the setting sun, appeared a striking and magnificent spectacle. The plain immediately before me, with several ploughs in motion, and interspersed with hamlets and country houses, presented the cheerful images of industry and homes."

The usual mode of navigating these parts is in vessels with triangular sails, called *Caiques*; and the native Greeks are extremely expert in their method of managing them, going from *Nauplia* to the *Island of Spetzia* in four hours, when the wind proves favourable.

HYDRA ISLAND. E. N. E. from *Spetzia Poulo*, distant 12 miles, is the western part of the *Island of Hydra*, which lies E. N. E. and W. S. W. (*E. & N. and W. & S.*), being about 11 miles in length, and 3 in breadth. This island has latterly become a place of considerable importance; and though only a few miles in circumference, with a surface so rocky, as scarcely to yield the most common vegetable, and even without any fresh water, except that which is collected in the cisterns, yet this little spot has a population of 30,000, and a property in shipping amounting to full 300 vessels, many of large tonnage, and well armed.

The town and port are situated on the north side of the island, distant about 5 miles from the main land. Off its western part is a small island, and between it and the main is another, called *Hedron*; these form a kind of basin, where their vessels ride secure, and only open to the winds from the East. Mr. Henry Holland, in his *Travels through Greece*, has the following note upon this island: "*Hydra* is the most remarkable of three or four isles in the *Archipelago*, which have risen into extensive commercial importance. It is worthy of notice, that all these isles are small, and for the most part of barren surface: had they been larger, or more fertile, the population would probably have been occupied in the growth, or trifling export of their produce, without entering into the general carrying trade, which is now their great source of wealth. The situation of *Hydra* has further led to this superior extent of its commerce, being closely adjoining to a fertile province, which abounds in grain and other articles of export; but it is subject, in general, to an ignorant and tyrannical Government. It has been itself almost exempted from political oppression, by coming under the feeble and dispersed authority of the *Capitan Pasha*. Its barrenness, too, might afford protection to the growth of its commerce, which now protects itself, by enabling the inhabitants to purchase an easy exemption from a Power almost too weak upon the seas to oppress them. A small tribute of money, and of sailors for the Turkish navy, secures the *Hydriotes* from any serious interruption in their traffic, in as far as the Turkish Government is concerned.

"Their trade consists principally in the transport of the produce of this part to other quarters in the *Mediterranean*, and in bringing back to the *Levant* return cargoes of colonial and manufactured articles. The chief export, especially lately, has been grain; the scarcity of which for two or three years in the west of Europe, has given an extraordinary stimulus to this traffic. The *Hydriote* ships, many of them three, four, or five hundred tons, purchased their cargoes of corn in *Greece*, *Egypt*, or *Asia Minor*; much of it from the *Morea*, *Thessaly*, or *Macedonia*; and carrying it down the *Mediterranean*, obtained a ready sale, occasionally at a profit of 40 and 50 per cent.

upon the cargo. The details of this trade are curious. The capitalists of *Hydra*, most of whom have originally been Captains of ships, reside on the island, and lend out their money to commercial adventurers, on the verbal faith (for writings are seldom employed) of receiving a certain interest, 10, 15, or even 20 per cent. upon the proceeds of the voyage. The Captains of ships, who are generally principal owners, are for the most part responsible agents in these transactions. It is the system of the *Hydriotes*, however, that every person on board their ships, even to the cabin-boy, has a share in the speculation, either in lieu of wages, for which the proportion is duly regulated, or by investment of the savings which any one may have made.

"Every *Hydriote* sailor is therefore more or less of a merchant, and is furnished with the strongest motive to habitual industry, in the opportunity of thereby advancing his fortune in life. The ships of the island have usually very numerous crews, who are reckoned the most skilful sailors of the *Mediterranean*. They all retain a strong attachment to their native place, and seldom fail to marry and establish themselves here, when they have acquired any property by their adventures. The *Town of Hydra* is built rather in the Italian than the Turkish manner, and contains many excellent houses, furnished in a style of luxury and sumptuousness."

Mr. Galt observes, "that the *Hydriotes*, wholly occupied with their vessels and trade, have as yet made no roads in the island. The town is well built, and resembles the form of a theatre; the houses are piled, in successive tiers, to a stupendous height; but the crowded port below, with the majestic stage of the sea, circumscribed by the distant scenery of Greece, displays a spectacle infinitely more sublime than any theatre can ever exhibit. There are 40 parish churches in the town, two having steeples of marble."

To the above may be added the testimony of Count Pecchio, who visited *Hydra* in 1825. "The Harbour of *Hydra*, by moonlight, in a summer's evening, presents one of the finest scenes imaginable. The city, composed of houses excessively white, hanging, in the form of an amphitheatre, upon a steep mountain, appears, in the night, like a mass of snow; and the lights, which at a distance sparkle from the open windows, appear like stars of gold on a silver ground. The batteries about the harbour are well constructed, and kept up with great care. Before the Revolution, *Hydra* possessed but 3 small cannon; but now the port alone is defended by more than 30 pieces of brass. At *Vlicos*, about a mile from the town, is an advanced post of soldiery; and as this is a place of disembarkation, it has a stone parapet of great strength, with barbicans, from behind which musketeers may drive an enemy from the shore. The island has three means of defence: first, its squadron; secondly, its situation on a narrow canal, which facilitates the manœuvring of fire-ships; thirdly, its garrison of *Roumeliot* soldiers, which, when the Turkish fleet is at sea, amounts to 3000 men.

"*Vlicos* is an agreeable promenade at sunset. A torrent opens its passage into the sea. Here and there, between the rocks, are seen Indian figs, fig-trees, and olives; and higher up the mountain, country houses are scattered about, belonging to the sea Captains, who contrive to raise, in small gardens, some flowers and fruit-trees. *Vlicos* has two small churches, in which are two lamps kept always burning."

Between *Spetzia* and *Hydra* are several rocks and rocky islets: the two largest are named *Stratonisi* and *Trichera*; the former has several smaller rocks about it, and must be carefully avoided. There is a good channel between *Hydra* and *Hydron*, and deep water all about; but in sailing along the southern side of *Hydra*, there is a rocky reef, which requires a wide berth. The N. E. end of *Hydra* is in latitude $37^{\circ} 23' 0''$ N., and longitude $23^{\circ} 35' 0''$ E. N. W. $\frac{1}{2}$ N. (N. N. W. $\frac{1}{2}$ W.) from the N. E. end of *Hydra*, distant 4 miles, is *Cape Skylli*, the passage between being the customary and best channel to the Port of *Hydra*.

GULF OF EGINA, or ATHENS. *Cape Skylli* may be considered the S. W. extremity of the Gulf of *Egina*, being in latitude $37^{\circ} 27' 0''$ N., and longitude $23^{\circ} 32' 10''$ E. The opposite boundary of the Gulf is *Cape Colonna*, in latitude $37^{\circ} 39' 15''$ N., longitude $24^{\circ} 1' 34''$ E., and bears from *Cape Skylli* E. N. E. $\frac{1}{2}$ N. (E. N. E. $\frac{1}{2}$ E.), distant 27 miles.

POROS. There is an island called *Stavro* lying off *Cape Skylli*; and from this island in a N. W. by N. (N. N. W. $\frac{1}{2}$ N.) direction, distant 2 leagues, lies the Island of *Poros*. Before you reach this island there is a fine and picturesque harbour, called *Monastero Bay*, containing good anchorage, but open to the east and south: here Captain Frankland anchored, *Cape Skylli* bearing S. E. by E., the Red Cliff outside of the monastery E. S. E., and the Island of *Stavro* S. $\frac{1}{2}$ E.: these are compass bearings. *Poros* is called in the Admiralty Chart *Calaura*: it is about $4\frac{1}{2}$ miles long

from E. to W., and a long narrow *point* stretches out from the body of the island to the northward. It is mostly high land, and abounds in lemons: here is the celebrated grove from whence eight millions of that fruit are annually exported to various ports, principally in the Levant; and in this grove Lord Cochrane swore never to desert Greece, while she continued faithful to herself. *Mount Elias*, the loftiest mountain, is near the centre of the island, and according to Captain Copeland, who surveyed this island in 1828, lies in latitude $37^{\circ} 31' 12''$ N., and longitude $23^{\circ} 27' 50''$ E. The town is situated on the southern side of the island upon a peninsula, which is joined to the island by a narrow ridge of sandy land, forming on each side a kind of bay. There is a channel between the island and the main, but it is narrow, and should have a pilot to conduct you through it. In entering it from the south-eastward, there is a knoll of $5\frac{1}{2}$ fathoms, situated nearly in mid-channel, and about a mile to the eastward of the little *Island of Gaithro-nisi*. There is good anchorage to the northward of this island in 17, 18, or 19 fathoms, well sheltered from all but S. easterly winds; or still more secure by riding to the southward of the *Peninsula of Poros*, midway between it and the main, in 13 fathoms; or by going in to the northward of *Poros*, and bringing the little *Island of Constantine* to bear N. N. W. (*N. $\frac{1}{2}$ W.*), you will have 11, 12, and 13 fathoms, and be almost land-locked. There is a small island lying to the eastward of *Poros*, called *Modhi*, off the north end of which is some shallow water; but otherwise its shores are steep-to, and the passage between it and *Poros* has 52 fathoms water in it. There is also a low islet off the northern *Point of Poros*, called in some Charts *Petalous*, bearing from the north *Point of Poros* N. E. (*E. N. E. $\frac{1}{2}$ N.*), distant 2 miles, from the west side of which a dangerous reef extends, requiring a good berth; therefore, in passing this way, you should steer mid-channel, or borrow nearer to *Poros*, by which you will pass in very deep water. W. N. W. $\frac{1}{2}$ W. (*W. N. W. $\frac{1}{2}$ N.*) from *Petalous Island*, distant $4\frac{1}{2}$ miles, is *Cape Estimo*, N. N. E. (*N. E. $\frac{1}{2}$ N.*) from which is the *Island Egina*, or *Enghia*.

EGINA. This island is situated in nearly the middle of the *Gulf* to which it gives its name, being of a triangular form, and having a population of nearly 10,000; it is about six leagues in circumference, and has a *port* on its western side. This part is well cultivated, but the general surface of the island is stony: the hills are, for the most part, naked rocks; their sides are steep, and formed by the farmers into kinds of terraces, which resemble so many rows of seats in a colossal amphitheatre.

The chief produce of the island is grain; there are also a few olive, almond, and fig trees; and wine is produced here, but not in sufficient quantity to supply its inhabitants. As you advance toward the island, you will observe the shaft of an ancient column projecting afar off, the remains probably of some temple. The sea has risen off late; but the ruins of the old port are yet visible, and the moles are in many places above water. The inhabitants formerly lived in a town built on a mountain, situated in the interior of the island, but latterly they have removed near the sea-shore, and now occupy the site of the ancient *Egina*: they are chiefly employed in maritime pursuits. Near the N. eastern point of the island are the remains of the Temple of Jupiter, standing upon a mountain, and consisting of 23 columns; and on an adjacent hill is a monastery, having the appearance of a castle. A modern traveller, Captain Frankland, thus describes his visit to this island in 1829: "Landed on the southern side of the island in a kind of natural basin, upon a curious calcareous formation, incrustured with shells of all sorts, and large blocks of red stone, like porphyry. Climbed over heights, through dwarf firs, juniper, and olive trees, with here and there a patch of cultivated ground, to the summit of the island, where stand the remains of the once beautiful Temple of Jupiter. Twenty-two columns of the Doric order, with part of the architrave, still remain erect. Formerly there were 52 columns, 12 on each front, 6 on each side, and two interior rows of 10 each. Its proportions are beautiful, and its preservation astonishing. Its position is superb, commanding a view of the sea, of *Hydra*, the *Bay of Salamis*, the *Piræus*, the *Acropolis*, &c."

At the S. western *Point of Egina* is the small *Island of Mogni*, and further west a larger one, called *Angistra*; there are also several other little *islets* to the north and north-westward, with passages between each, deep water all around them, and good anchorage, if requisite.

ATHENS. N. N. E. (*N. E. $\frac{1}{2}$ N.*), distant 11 miles from the N. E. *Point of Egina*, is the entrance to *Port Lion*, the ancient *Piræus*, or *Harbour of Athens*, a small but well-sheltered port, of a circular form, and narrow entrance, capable of containing 3 or 400 small vessels, which draw but little water. On its shore stand

a custom-house and a small church. A very few relics of the ancient works are still visible, and there are the remains of two beacons, which formerly marked the channel into the inner harbour; these are still to be seen above water; one of them is in ruins. Mr. Galt, who visited this place in 1810, states the population to be about 10,000; but this most probably is much above its present number of inhabitants. At a short distance from the entrance to this port is the large and well-known figure of a Lion, made of white marble. Captain Frankland says there formerly were two lions, one on each side of the harbour; but these have been taken away, and are now in the arsenal of Venice. The Monastery of *St. Spiridione* was destroyed by Lord Cochrane. The only commerce carried on at this port consists of the productions of the surrounding country, the principal articles being olive-oil, honey, wax, silk, and wool. To the eastward are two smaller coves or harbours, called *Stratitotiki* and *Phanari*. The waters of *Cephissus* and *Ilissus* fall into the *Gulf of Egina*, the latter passing by the southern side of *Athens*, which is at the distance of 5 miles from the port.

The north winds are here very rare, except in winter; but when they do come on, they bring great cold. The months of December and January are usually attended with heavy rains. In summer the S. W. winds are most prevalent, attended with great heat; easterly winds are also frequent during this season, with rain; but the Sirocco, or S. E. winds, are seldom experienced. Between October and March the heat is moderate, and the climate healthy; but in summer it is intense.

COLOURIS, or KOULOURI. This island is about 9 miles long from east to west, and $2\frac{1}{2}$ broad, being divided from the territory of *Athens* by a narrow and crooked channel: its western side forms a fine harbour, extending in an east and west direction for 5 miles. Here Captain Frankland anchored in 18 fathoms, sheltered from all winds, and on good holding ground, the *Town of Colouris* bearing $W. \frac{1}{2} N.$, heights over *Athens* East, and the bulk of *Colouris* Island to the southward: these are compass bearings. On the north side is the *Bay of Eleusis*, in the strait leading to which, on the east, the water shoals from 20 to $2\frac{1}{2}$ fathoms, but deepens again inward. Here is a ferry. On the west side of the entrance of this strait, about 2 miles from the *Piræus*, is the *Island Psyttalia*, which affords shelter from all winds in 18 and 20 fathoms, hard sandy ground. Over an inlet on the eastern side of the channel, is the *Village Ambelaki*, situated in the midst of fertile fields, having on one side a creek, and in front an extensive but shallow port. The *Town of Colouris*, (the ancient *Salamis*) stands on the north shore, at the bottom of the *Gulf*, at the foot of a conical hill, and contains about 5000 people: they export grain, oil, wine, and almonds.

On the north side of the *Bay of Eleusis*, and opposite to the *Strait of Salamis*, is *Lefsiina*, or *Lepsiini*, now an inconsiderable village. The *Eleusinian Plain* is 7 or 8 miles long; and though destitute of rivers, is yet extremely fertile. To the N. W. of *Colouris* is the little *Town of Megara*, containing about 400 houses, all flat-roofed, and nearly 1000 inhabitants; not far from this is the *Panagia Fani Romani*, the most considerable monastery in Greece. From *Megara* the coast runs $W. S. W.$ ($W. \frac{1}{2} S.$) for more than 5 leagues, to the *Bay of Kenchreas*: here stands a small village, which gives its name to the *Bay*; this formerly was the eastern Port of *Corinth*, from which that city is only two leagues distant.

Between the *Island Egina* and the main there are several small islands, and on the western side of the *Gulf* is *Port Piada*; the village is situated about 2 miles from the sea. Here stands an old tower, and to the southward are the ruins of the ancient *Epidaurus*. The road from hence to *Nauplia* is beautifully diversified with hills and woods, and watered by numerous streams.

From *Port Lion* the eastern coast of the *Gulf of Egina* takes a S. easterly direction, towards *Cape Colonna*. There are some rocky islets lying off the several points of land, with temporary anchorages behind them; these may be readily seen on the Chart, but do not otherwise require description, until you reach the *Island of Provensala*, called also *Gaithro-nisi*, where the land turns to the east ($E. S. E. \frac{1}{2} E.$) and the *Cape* becomes visible. From this island to *Cape Colonna* the distance is $3\frac{1}{2}$ miles, in which there is good anchorage in 12, 10, and 8 fathoms water.

CAPE COLONNA lies in latitude $37^{\circ} 39' 15'' N.$, and longitude $24^{\circ} 1' 34'' E.$, and is a most remarkable promontory, having on its summit the ruins of an ancient temple, said to have been dedicated to *Minerva*, of which there are 16 massy columns still remaining: these are elevated to the height of 200 feet above the level of the sea, and may be seen at a great distance. Whichever way you approach the *Cape*,

the scenery is striking: there are caverns underneath the *Cape*, which are commonly the resort of pirates.

From *Colonna* the coast turns sharply up to the north-eastward, and is faced on the east by the *Island Macronisi*, or *Long Island*, the south end of which bears from *Cape Colonna* E. $\frac{1}{2}$ S. (E. S. E. $\frac{1}{4}$ E.), distant 4 miles; from thence it extends N. by E. $\frac{1}{2}$ E. (N. N. E. $\frac{1}{4}$ E.) about 7 miles, being nearly 2 miles in breadth. It is a low barren island, and only inhabited by some Greek shepherds, who cultivate a little grain, and look after a few flocks. There are the ruins of an ancient city, and a fine spring of water upon it. Some sunken rocks are reported to lie off its northern end, to which it will be advisable to allow a berth in passing.

PORT MANDRI. Directly opposite to the *Island Macronisi*, upon the main land of Greece, lies *Port Mandri*, forming a semicircular bay, about half-a-league in breadth, where you may find good anchorage with from 16 to 4 fathoms water, clay and sand. This is a good place to run into with a northerly or southerly gale; for there is nothing to fear except the ledge of rocks off *Macronisi*, which has been already spoken of. In coming in from the southward, steer round *Point Colonna*, and sail mid-channel between *Macronisi* and the main; and when you get well before the entrance of the port, haul in for the anchorage: the best place for this purpose will be with the northern point of the entrance bearing E. N. E. $\frac{1}{4}$ E. (East), and the southern point of the port S. S. E. $\frac{1}{4}$ S. (S. $\frac{1}{2}$ E.), for here you will be sheltered also from easterly winds by the *Island Macronisi*. There is a small white church on the northern point, and a spring of good water at a well to the N. westward; a supply of fire-wood also may readily be obtained here.

PORT RAPHTI. Having quitted *La Mandri*, and cleared the north-west end of *Macronisi*, steer N. N. W. $\frac{1}{2}$ W. (N. by W. $\frac{1}{4}$ W.) for *Port Raphiti*, which is distant from *Port Mandri* full 3 leagues, and is considered one of the most commodious harbours in the *Athenian Sea*. The entrance to the port is rather more than a mile broad; but near the middle of it is an island with a mutilated *Statue* upon it, 298 feet above the level of the sea, which forms a most admirable mark for the harbour. This island may be passed on either side, having from 10 to 20 fathoms all round, at only a little distance from the island. Within the harbour are two small coves, one to the N. W., the other to the S. westward; there are also 2 lesser islets within the *Statue Island*. At the further end of the N. W. cove are some ruins, with part of the remains of a pier under water, and a well, in which good soft water may be constantly obtained. Fire-wood is in abundance. The anchorage is about three-quarters of a mile within the *Statue Island*, either in 11 fathoms, with that island bearing E. S. E. $\frac{1}{2}$ E. (S. E. by E. $\frac{1}{4}$ E.); or in 8 fathoms, with the same island bearing E. N. E. (E. $\frac{1}{4}$ N.). *Statue Island* is in latitude $37^{\circ} 52' 55''$ N., longitude $23^{\circ} 59' 0''$ E.

MARATHON. N. $\frac{1}{2}$ W. (N. $\frac{1}{4}$ E.) from *Port Raphiti*, distant 17 miles, is the centre of the *Bay of Marathon*, which is bounded on the north by a narrow point projecting southerly, and to the south by *Cape Kavala*, a broad elbow of land; the distance between the two points of this bay is 2 leagues, and the soundings from 15 to 21 fathoms; but this place is unsheltered, and wholly open to the S. E. winds. At the best anchorage, which is near its centre, you will ride in 8 or 7 fathoms, or decrease that depth as you approach the shore. Here the little *River Keymarios*, after crossing the *Plain of Marathon*, runs into the sea. The famous *Town of Marathon* has now dwindled into a petty village with only 40 or 50 houses, which remain on the northern banks of the river, about $3\frac{1}{2}$ miles inland. From the *Bay of Marathon* may be seen *Mount Hymette* to the southward, and *Mount Penteli* to the westward; the sides of which are covered with myrtle, cypress, and cedar trees, intermingled with pines, which produce turpentine in abundance.

THE NEGROPONT CHANNEL. This is a strait which, running along the shores of *Livadia*, continues in a north-westerly direction for upwards of 70 miles, and divides the *Island of Negropont* from the main by a channel of irregular breadth, being crossed by the *Bridge of Egripos*, in its narrowest part, about 30 miles above *Marathon*, where the strait is not above 100 yards wide. Here stands the capital *City of Egripos*, supposed to occupy the site of the ancient *Chalcis*, and having at present a population of 4000; but so little is the navigation attended to, that the arches of this bridge are now nearly filled with sand and rubbish, so that even a galley can hardly pass through them. The southern part of this channel or strait is called the *Channel of the Negropont*, while the northern half, above the bridge, is known by the distinction of the *Channel of Talanta*, being named after a considerable inland town in *Livadia*. These parts have never yet been properly surveyed; and the

little commerce that has been carried on of late years, owing to the unsettled and revolutionary state of the natives, does not allow a minute description to be given.

The *Negropont*, properly speaking, is confined to an island 94 miles long, and from 5 to 18 miles broad. This land is mountainous, though formerly styled "the granary of Greece;" but although its soil is equally productive as of old times, yet the modern inhabitants do not cultivate it with proper assiduity. The level parts of the island are generally extremely fertile in grain, wine, oil, and fruits; there are also mines of marble and copper; and the island on the western side has several good harbours. But it has been, and is at present, under the Turkish Government, whose chief characteristic is certainly not industry or improvement of any kind. The mountains are frequently covered with snow, and its eastern coast is rocky, irregular, precipitous, and destitute of harbours; therefore must always be avoided, especially with an adverse wind.

THE PETALOUS ISLANDS. Off the S. western shore of the *Negropont*, to the S. E. (S. S. E. $\frac{1}{4}$ E.) of *Marathon*, distant 15 miles, and E. N. E. $\frac{1}{4}$ N. (E. N. E. $\frac{1}{4}$ E.) from *Port Rapti*, distant 10 miles, are situated the *Petalous Islands*, consisting of one large and several smaller *islets*, behind which vessels may occasionally obtain very good anchorage: this will be found particularly convenient for vessels bound through the *Strait of Doro*, or as it is sometimes called *Silota*, especially when caught by bad weather from the southward, and unable to get through the *strait* before night; and also with N. easterly winds, instead of running further to the leeward; for it will frequently happen that those winds will blow so strong in the *strait*, that a vessel will be totally prevented from finally succeeding in getting through, when it will be moderate in other parts: in such cases a good shelter may be found here until the weather moderates. But you must not go between the *Petalous Islands* and the *Island of Negropont*, for this channel is too narrow, and the ground uneven; while that between the two larger islands to the southward is quite shoal: therefore you should steer to the southward of the largest island, and haul in N. E. for the anchorage; or, with a northerly wind, you may pass within any of the other islands, as the passages are quite clear. The water appears shoal off the points, because the bottom is white sand; but by giving them a berth of two-thirds the length of a cable, you will pass them in 6 or 5 fathoms. The shores of this harbour are bold all round. You may anchor in the middle of the cluster of islands in 20 or 22 fathoms, the ground holding well. The islands have few or no inhabitants, and there is plenty of wood, but no water.

THE ISLAND OF ZEA. The S. W. point of this island bears from *Cape Colonna* E. S. E. $\frac{1}{2}$ S. (S. E. $\frac{1}{4}$ E.), distant 15 miles; it thence extends N. N. E. (N. E. $\frac{1}{4}$ N.) 11 miles; its breadth is about 5 miles. The northern point bears from *Port Rapti* S. E. by E. (S. E. $\frac{1}{4}$ S.), distant 6 leagues; and from the *Bay of Marathon* S. E. $\frac{1}{4}$ S. (S. S. E.), distant 9 leagues. The passage between it and the *Island Macronisi* is $8\frac{1}{2}$ miles broad, and without any danger whatever. "The country of *Zea*," observes Mr. Laurent, "has, at first sight, a barren aspect, but as you get nearer to it, the appearance improves; the precipitous sides of the hills have been formed into innumerable artificial terraces, and the town stands elevated above 60 of these. Upon these mounds or terraces the grain is sown and cultivated. The chief produce of the island is vellani, (the oak producing valonia), cotton, and a little barley. A small quantity of silk also is produced here; and tradition affirms, that at this spot that article was first discovered. There are a few gardens, which supply the inhabitants with abundance of citrons, melons, lemons, pomegranates, and currants; but the land is mostly deficient in pasturage. The few cattle they have, are fed upon bushes of the prickly and small-leaved oak, which abounds here; and its acorns furnish food for an innumerable quantity of swine, which rove about in large herds. There is but one town in the island, which, as before observed, stands in a very elevated situation: to this a rugged road leads up through dirty narrow lanes; but the higher part becomes somewhat more respectable. The town consists of full 1000 houses, built with flat roofs, and laid out in irregular unpaved streets; the population is nearly 5000, among whom at least 50 are Priests, with a Bishop at their head. Most of the surrounding eminences are surmounted with windmills. The British Vice-Consul, who is a Greek, receives three dollars from each ship which, through stress of weather, or otherwise, takes refuge in the port; and the house which he inhabits, is distinguished by a display of the English Jack."

"*Zea*," says Mr. Galt, "is better adapted for a commercial seat, than to furnish much itself to commerce. Its situation is singularly happy; and by its excellent port,

one might almost conclude that it could not fail to become hereafter a place of great trade. It equally commands the *Gulf of Egina*, and the *Strait* that separates *Negropont* from *Greece*. But, as *Hydra* demonstrates, habits of industry are of infinitely more consequence to prosperity than either situation or fertility of soil."

The *Port of Zea*, called also *Port St. Nicholas*, is on the N. W. part of the island, and is at its entrance but one-third of a mile broad, being contracted by a narrow tongue of land that extends to the S. W. from the north side to the same distance. The general depths, on rounding into the harbour to the N. eastward, are from 27 to 16 fathoms; and thence towards the watering-place, which is in the easternmost part of the bay, in the N. E. angle, they decrease to 5 fathoms.

To enter the harbour, which is in latitude $37^{\circ} 40' 0''$ N., and longitude $24^{\circ} 19' 0''$ E., if approaching from the westward, you will perceive a round mountain with a church upon it: so soon as you have got a fair sight of this, steer close in to the land, and run along it until you open the harbour, for otherwise you may perchance pass by without observing it. On the northern side of the harbour stands a white church, or *Hermitage of St. Nicholas*, which serves as a good mark to distinguish it, and upon the high lands are several wind-mills; bring these to bear to the S. eastward, until you get the above church about N. by E. (*N.N.E. $\frac{1}{2}$ E.*); then, should the wind be westerly, haul round the north point, and anchor in the northern part of the harbour, where you will ride safely, sheltered from all winds. Vessels bound to the westward, should take this station, because, with a fair wind, they can thus quit the harbour with facility; but those bound out to the eastward, should anchor at the southern part of the harbour, or lie half a cable's length from the southern point, with a hawser on shore upon it, and an anchor to the N. eastward, in 16, 14, or 12 fathoms water. Here also is a *Hermitage*, called *St. Sabas*, and near it some fishing storehouses.

There is a little bay on the S. W. side of *Zea*, called *Port Kabia*, where occasional shelter may be found from the N. E. and east winds. The mountain on *Zea*, according to Captain Gauttier, is in latitude $37^{\circ} 37' 18''$ N., and longitude $24^{\circ} 21' 40''$ E.

St. GEORGE D'ARBORA. In beating up for the *Macronisi* or *Zea Channels*, you will get sight of the little *Island of St. George d'Arbora*, which lies in the passage from *Hydra*; this is about 2 miles in length from S. E. to N. W. It is narrow, rocky, and uncultivated, but yet occupied by two or three families, who possess a few flocks of sheep and goats; there is no danger about it. Its summit is in latitude $37^{\circ} 28' 14''$ N., and longitude $23^{\circ} 55' 42''$ E.

ANDROS. This island lies to the north-eastward of the *Island of Zea*; its northern part forming, with the south end of *Negropont*, the *Strait of Doro*, sometimes called *Bocca Siloto*, which is about 6 miles wide, and is the channel most commonly used by vessels going to the northward. Its northern point, *Cape Guardia*, is in latitude $37^{\circ} 58' 0''$ N., and longitude $24^{\circ} 43' 0''$ E., from whence it extends S. E. (*S. S.E. $\frac{1}{2}$ E.*) 21 miles, its breadth being about 7 miles. It is of considerable height, and generally believed to be one of the most fertile of the *Cyclades*. Besides its principal town, *Andro*, which is situated at its eastern side, it is said to have more than 60 villages, with a population of above 18,000. These chiefly produce their own support, and employ little money in their transactions: the staple production of the island is silk, of which article one thousand okes are annually exported. The island is beautifully interspersed with gardens, which produce pomegranates, oranges, lemons, and various other fruits in abundance, and for exportation; but their wines, oil, wheat, and barley, both of which latter seed are mixed and grow together, are only sufficient for home consumption; and it not unfrequently happens that they are under the necessity of obtaining a still further supply of grain from *Egypt*, *Volo*, or some of the ports of *Anatolia*. Near 5 miles to the southward of *Andro* is the *Village of Palæo Castro*, situated on the S. E. point of the island: here commences the strait which separates *Andros* from *Tinos*, and is clear from danger, but only 2 miles broad. There is no harbour on the eastern side of the island; but on its western side, in latitude $37^{\circ} 51' 0''$ N., is *Port Gabriel*, about $7\frac{1}{2}$ miles from *Cape Guardia*. This is much encumbered with rocks, and by no means safe, or to be recommended; for although vessels may ride there safe enough, yet the ingress and egress will always prove hazardous, unless you are thoroughly acquainted with the place. When, therefore, you find yourself unable to get through the *Doro Channel*, it will always be advisable to run for *Zea*, or *Port Raphthi*, where you may remain in safety until you can make your passage with more success.

Having cleared the *Strait of Doro*, and bound for the eastward, you must guard against the *Kalori*, or *Monks*, two dangerous rocks, heretofore very imperfectly laid down on the Charts, or omitted altogether: they are now for the first time placed on

the corresponding Charts with much exactness, and will by inspection appear to be two rocks above water, lying E. N. E. ($E. \frac{1}{2} N.$) from *Cape Guardia* in *Andros*, distant 32 miles, and from *Cape Doro* directly East ($E. S. E. \frac{1}{2} E.$), distant 32 miles; they have some *sunken rocks* about them, and deep water all round. They are in latitude $38^{\circ} 9' 33'' N.$, and longitude $25^{\circ} 18' 0'' E.$, as laid down by Captain Beaufort in 1812. There are soundings about and between them of from 7 to 50 fathoms, coral. To the westward, about three-quarters of a mile, are 112 fathoms; and at about the same distance, to the southward of them, are 70, 82, and 105 fathoms. To the S. eastward, distant $1\frac{1}{2}$ mile, there are 136 fathoms, muddy bottom; and at a little distance, on their north side, it deepens to 45 and 60 fathoms; then no ground. Having cleared these dangers, the mariner may proceed without fear for *Smyrna* or the *Dardanelles*.

SECTION XII.

THE WESTERN AND NORTHERN COASTS OF THE ARCHIPELAGO,
OR EGEAN SEA; FROM THE STRAIT OF DORO, OR SILOTA, TO
SALONICA, AND FROM THENCE TO THE DARDANELLES;
INCLUDING THE ADJACENT ISLANDS.

Variation, One Point and a Quarter West.

FROM the S. western point of the largest *Petalous Island*, an E. $\frac{1}{2}$ S. ($E. S. E. \frac{1}{2} E.$) course for 15 miles will carry you along the *Island of Negropont* to *Cape Mantelo*, its southern extremity, off which lies the little *Island Anglaise*, with a rock at its southern end; and after rounding this island, you will enter the *Strait of Doro*, or *Silota*. There is no danger whatever in passing through this strait.

The eastern coast of the *Negropont* has been already described as rocky, precipitous, and destitute of harbours. *Cape Doro*, the S. eastern point of the island, is in latitude $38^{\circ} 9' 30'' N.$, longitude $24^{\circ} 36' 0'' E.$ From *Cape Doro* to *Cape Kerronisi* the course is N. W. $\frac{1}{2}$ W. ($N. W. \frac{1}{2} N.$), and the distance 20 miles; there is an islet off the former, and several rocks off the latter. From *Cape Kerronisi* to *Cape Tilida* steer N. by W. ($N. \frac{1}{2} E.$) about 10 miles; the shores between bend in circularly, and there is a little islet to the southward of *Cape Tilida*. From *Cape Tilida* to *Cape Kili* the course is N. N. W. ($N. \frac{1}{2} W.$), and the distance 10 miles; there are some rocky islets off *Cape Kili*, and the rocks of all these last-mentioned points frequently occasion whirlpools or eddies, which, by keeping at a little distance, you will very easily avoid. Directly east ($E. S. E. \frac{1}{2} E.$) of *Cape Kili* is *Prassonda*, a small rocky island, with deep water all round it; and S. W. $\frac{1}{2}$ S. ($S. W. \frac{1}{2} W.$) is another somewhat smaller, called *Siphia*: you may sail on either side of these without any danger, and having passed between them, your course to the north-east *Point of Negropont*, and entrance to the *Channel of Trikeri*, will be W. N. W. $\frac{1}{2}$ N. ($N. W.$), distant 16 leagues. In this route the whole land has a lofty appearance; but, towering above the rest, you will see *Mount Delphi*, in latitude $38^{\circ} 37' 43'' N.$, on your larboard side, and the *Islands of Skyros* on your starboard.

SKYROS ISLANDS. These are a cluster of islands lying off *Cape Kili*, the largest of which is of a crooked and irregular form, about 15 miles in length from N. W. by N. to S. E. by S. ($N. N. W. \frac{1}{2} N.$ to $S. S. E. \frac{1}{2} S.$); its centre bears from *Cape Kili* N. E. by E. ($E. N. E. \frac{1}{2} E.$), distant 20 miles. Its appearance is rugged and rocky; yet, nevertheless, it has from 12 to 1500 inhabitants, who cultivate the vallies, which produce some wheat, barley, and wine, and afford pasturage to flocks of sheep and goats: they also export a sort of marble, having black veins; but the population, which chiefly consist of Greeks, are poor, and live wretchedly. There are said to be very considerable ruins on the island. On the western side of the island is what is called the *Grand Port*, being by far the best in the island; at the back of which stands *Mount Cochilla*, in latitude $39^{\circ} 49' 48'' N.$, and longitude $24^{\circ} 37' 5'' E.$ On advancing towards *Skyros*, you will discover, on the S. western side,

a valley, which at a distance may make you imagine the island is divided into two parts; this is occasioned by the jutting in of the *Grand Port*, where there is good anchorage at all times. At the southern point of this port are some *rocky islets*, which run out to the westward: these are of a reddish colour, which serve, together with the above *Mountain*, to distinguish the entrance; at the north side of the port is a long flat and barren *island*, having between it and these *red rocks*, deep water and good channels. You may also enter between *Friou Island* and *Skyros*: here are 6 and 7 fathoms, but the passage is narrow. Having advanced within the islands, you may anchor on the north side of the harbour, but will have better riding on the south side; therefore, so soon as you get within the island, haul up southward, and anchor in 18 or 17 fathoms; there you may lie with a fast on shore, and an anchor to seaward. There is also a good road to the westward of *Friou Island*, between it and the western *Point of Skyros*, in 15 or 14 fathoms; and there are several other islands hereabout, all fair and clean, with good anchorage between them.

Near the middle of the southern end of the island is the little *Port of Three Mouths*, being formed by an indentation of the land, and two islands lying before it: you may steer in at either of the three channels, for they are all free from dangers, and anchor safe within the harbour, in from 20 to 10 fathoms water. To the northward of the *Port of Three Mouths* are other anchorages; but, as before observed, the *Grand Port* is the best. About two leagues to the westward of the *Grand Port* is the *Island Skyro Poulo*, with some little *rocks* about it: this is uninhabited. From the northern end of *Skyros* a reef extends out a full league to the N. N. W. (*N. $\frac{3}{4}$ W.*); it has several rocks upon it, and must be avoided.

TRIKERI, ZEITOUN, AND VOLO. Between the northern part of the *Island of Negropont* and the main, is the *Channel of Trikeri*, leading to the *Gulfs of Zeitoun*, the *Channel of Talanta*, and the *Gulf of Volo*. In sailing from the southward or eastward for the *Channel of Trikeri*, you will leave a group of islands on your starboard side, of which we shall speak hereafter; and at its entrance will see, on your larboard side, the small *Island of Pondico*, situated about a mile off the northern point of the *Negropont*, behind which, it is said, you may occasionally find shelter from North and N. westerly winds. The channel here is nearly 5 miles wide, and runs in W. by S. (*W. $\frac{3}{4}$ N.*) for 15 miles, where the stream divides, running N. W. (*N. N. W. $\frac{3}{4}$ W.*) towards the *Gulf of Volo*, and S. W. (*W. S. W. $\frac{3}{4}$ S.*) towards the *Gulf of Zeitoun*. Having reached the N. W. *Point of the Negropont*, the passage again turns to the S. East and southward into the *Channel of Talanta*, a broad extensive *Gulf*, leading to *Egripos*, and frequented by the Turkish fleets, but not, at present, used by merchant vessels belonging to other nations.

THE GULF OF ZEITOUN is about 5 miles broad, and runs in westerly for 15 miles; at its further end is the *River Hellada*, and the celebrated cliffs forming the *Pass of Thermopila*. The *Town of Zeitoun* is situated on the ascent of a hill on the northern side of the valley, and distant from the *River Hellada* about 3 miles; the summit of the hill is crowned with the remains of a castle of considerable extent. The effect of the buildings about the town, rising above each other in a steep ascent, is at once singular and picturesque. The town contains 6 or 700 houses, and has a proportionate population, partly Turkish and partly Greeks. The commerce carried on here is principally in grain, and the produce of the surrounding country, the greater part of which is brought down to the *Gulf* for exportation; and the inland navigation afforded by this arm of the sea, is of great advantage to the interior of *Thessaly*; the more so as, with the exception of *Volo*, there are no ports on its eastern side to give an outlet to the produce of the fertile plains of this province.

THE GULF OF VOLO is, at its entrance, between *Points Fetio* and *Trikeri*, only 3 miles wide; but when you get within these points, it opens to the northward, and becomes full 12 miles in extent each way, forming several excellent ports, with good depths of water and anchorages, where vessels may ride secure, and land-locked from the effects of every wind. The *Town of Volo* is situated at the head of the *Gulf*, in latitude $39^{\circ} 23' 20''$ N., and longitude $22^{\circ} 57' 0''$ E. It contains about 700 houses, chiefly built of stone, but badly arranged, and situated in an unhealthy place, though well calculated for commerce. But the modern *Town of Trikeri*, which stands high above the level of the sea, and surmounted behind by the conical summit of the promontory, is much more healthy, and now forms the principal seat of commerce. Formerly the natives inhabited the little *Island of Trikeri*, situated in the strait of that name; but the frequent and destructive incursions of pirates induced them to abandon it, and transfer their town to the peninsular promontory on which it now stands: and

here, placed at the entrance of the *Gulfs of Volo and Zeitoun*, it commands a large traffic in corn, oil, and the other products of the inland countries, particularly in sponges, which are gathered in abundance from the adjacent shores. The present town consists of about 400 houses, inhabited almost exclusively by Greeks, whose occupations are chiefly maritime, and whose habits are industrious and enterprising. The merchants are principally ship-owners. Vessels are constructed here; and the *Island of Negropont* contains extensive forests of oak, fit for ship-building, which hereafter, under a more settled Government, will probably become a source of much advantage.

To the eastward and north-eastward of the entrance of the *Channel of Trikeri* is the group of islands already alluded to in page 221; these occupy an extent of fourteen leagues, and face the entrance to the *Gulf of Salonica*.

SKIATHOS. The nearest of these islands to the main land of *Thessaly* is called *Skiathos*: it is a square island, about 4 miles in extent each way, is somewhat lofty, covered with trees, and has several detached *islets* lying off its south-eastern part, the southernmost group of which is named *Pachia*. These islets form a harbour, on entering which, you will see the ruins of a castle standing near the middle of the bay; steer towards it, and anchor where most convenient: but the best shelter will be found on the western side, where you will ride in from 12 to 8 fathoms. The village here is small, and called *Oraio Kastro*, which gives its name to the harbour. From hence you can proceed to sea with any wind, and may pass between any of the islands at its entrance, there being a sufficient depth of water, and no danger. There are also other roads to the westward, where vessels may anchor, if requisite. At the north end of the island, upon a peninsula, stands a village with about 200 houses; and between *Skiathos* and the main channel is a league wide, having a rock in it under water, and near the main land, which must be carefully avoided.

SCOPELO. This is a much larger island than *Skiathos*, being full 3 leagues in extent from S. S. E. $\frac{1}{2}$ E. to N. N. W. $\frac{1}{2}$ W. (S. by E. $\frac{1}{2}$ E. to N. by W. $\frac{1}{2}$ W.). It is high and precipitous, presenting a lofty line of cliffs towards the sea. There are two towns; the larger one is situated on the eastern side of the island, and contains more than 1000 houses and 12 Greek churches; the other, called *Glossa*, stands on the front of a steep hill which rises from the western shore. The population is exclusively Greek. The greater part of *Scopelo* is uncultivated; but there are portions of land in the vicinity of the town which produce grain, grapes, olives, and other fruits peculiar to the climate. The entrance to the haven on the western side is narrow, but free from danger; and on its southern side, when you are within the harbour, there is a point where the anchorage is good in 20 or 16 fathoms; here you may anchor, and carry a fast on shore, lying so that you will not even see the entrance, and be sheltered from all winds; but it will be difficult to get out of this bay when the wind blows from the westward. To the northward of the haven are some islands, under which you may also find anchorage; but the riding there is bad, and exposed both to northerly and southerly winds, which blow directly in. Between these islets and *Scopelo* are from 40 to 35 fathoms water. About the centre of *Scopelo* is *Mount Derfi* or *Delphi*, the summit of which, according to *Gauttier*, is in latitude $39^{\circ} 8' 13''$ N., and longitude $23^{\circ} 41' 50''$ E.

CILIDRONI, OR CHILIDROMIA, is a narrow island, lying N. E. by N. and S. W. by S. (N. E. $\frac{1}{2}$ E. and S. W. $\frac{1}{2}$ W.): it is 10 miles long, and 3 miles broad, and distant from the south part of *Scopelo* about 3 miles. Midway between the two is a little rocky islet, called *St. Plias* or *Elias*, which rises from the sea to a great height. The *Island of Cilidroni* is lofty, and its shores are precipitous; its surface is highly varied, here and there being covered with trees and shrubs: it is composed of rocks of a milk-white and yellow cast, and on the beach is a great quantity of sponge. The village is situated on a hill at the western side of the island, and consists only of 150 houses, the inhabitants being so frequently plundered by the pirates who commonly infest these seas, that a majority of them have deserted the island altogether, and the remainder subsist chiefly on fish, and the scanty produce which their partial cultivation affords. There are a few goats upon the island, and some oxen, which are used in ploughing.

SARIKINO, OR PERISTERA, is separated from *Cilidroni* by a narrow channel about one mile and a half broad, and is in itself a rocky islet, about 6 miles long, and lying nearly parallel to *Cilidroni*, its breadth being about 2 or 3 miles. On the northern part of this island is said to be a deep secluded bay, sheltered by the surrounding rocks, and also, to the northward, by the projection of *Cilidroni*. This bay has 10, 15, and 20 fathoms close in to the shore. Between the *Islands of Cilidroni and Sarikino* the depth varies from 50 to 20 fathoms. The highest part of the latter island is about

600 feet above the level of the sea; and though not much broken in its general outline, the surface is extremely rugged, being every where covered with detached fragments of rock, among which several shrubs grow in great luxuriance.

To the southward of *Sarikino* are 2 or 3 barren rocks, called the *Adelphi Isles*. E. S. E. $\frac{1}{2}$ E. (*E. S. E. $\frac{1}{2}$ S.*), distant two leagues from the *Adelphi*, is the rocky *Island of Scangero*, uninhabited, and of little importance to navigation. W. S. W. $\frac{1}{2}$ W. (*W. $\frac{1}{2}$ S.*) from *Scangero*, distant 3 miles, are two other rocks, called *Gaidaro*, barren and uninhabited also.

PELLERISSA ISLAND lies N. E. $\frac{1}{2}$ E. (*E. N. E. $\frac{1}{2}$ N.*) from the N. E. point of the *Island Ciliadroni*, distant 4 miles; this is, in fact, one isolated mountain, whose summit is in latitude $39^{\circ} 20' 0''$ N., longitude $24^{\circ} 5' 0''$ E.; it is in length and breadth about one league each way. *Jura*, or *Joura*, lies precisely in a similar direction from *Ciliadroni*, but further off, being distant from *Jura Island* $2\frac{1}{2}$ miles; this is of the same appearance and extent with *Pellerissa*, with a mountain near its centre. Midway between *Pellerissa* and *Jura* is a small islet, with a rock at its northern end, called *Prasso*. Directly West (*W. N. W. $\frac{1}{2}$ W.*), distant 8 miles from *Prasso*, is the *Island Piperi*, the easternmost of the whole group, being about two miles long, and one mile broad. It has a mountain rising up near its centre, in latitude $39^{\circ} 20' 30''$ N., longitude $24^{\circ} 19' 0''$ E. There is also a small islet two miles North (*N. by E. $\frac{1}{2}$ E.*) from *Jura*, commonly called *Jura Poulo*; this forms the northernmost of these remarkable islands; between the whole of which there are safe navigable channels and deep water. We know not whether these latter islands are inhabited, or have any harbours or places of refuge in cases of necessity; but they are the customary resort of pirates, and therefore should either be avoided altogether, or guarded against with the greatest vigilance.

We now return to the main land of *Thessaly*. N. W. $\frac{1}{2}$ W. (*N. W. by N.*) from the north point of the *Island Skiathos*, distant 8 miles, is *Cape St. George*, from whence the shore continues, N. W. (*N. N. W. $\frac{1}{2}$ W.*) for 7 leagues, to *Cape St. Catherine*: there is no intermediate bay or harbour, but the land is high, and the coast steep-to. Here, in latitude $39^{\circ} 26' 17''$ N., rises up the majestic *Mount Pelion*, now *Patras*, whose sides for ages have been the abode of chestnut, plane, and beech trees, some of which are of great age and most extraordinary size. Following the shore, which winds from *Cape St. Catherine* somewhat semicircularly, for 6 leagues, to *Cape Kissova*, or *Sigri*, the features of the coast continue high, precipitous, and steep-to. Here, behind *Cape Kissova*, you will see the celebrated *Mount Ossa*, now called *Kissova*, in latitude $39^{\circ} 48' 0''$ N., and beyond that the no less renowned *Mount Olympus*, now *Mount Elymbo*, in latitude $40^{\circ} 4' 32''$ N., and longitude $22^{\circ} 21' 53''$ E. A modern writer has observed that *Mount Pelion* exhibits a broad and rounded outline, and when viewed from the southward, shews two summits at a considerable distance from each other, the concavity between them being so slight as to give it the appearance of a table mountain; while *Ossa* has a steeply conical form, terminating in a point. *Mount Olympus* is above 6000 feet high, and is topped with snow during most part of the year. When seen from the eastward, it shews a line of abrupt precipices of vast height, broken at intervals by deep ravines richly clothed with forest-trees. Along the base and skirts of the mountain, and up to the first ridge, are seen the oak, beech, plane, and chestnut trees in great luxuriance, while forests of pine are spread along the declivities. Behind this first ridge others rise up, and recede towards the loftier central heights of the mountain. A small chapel has been constructed near its summit; but the highest habitation is the *Monastery of St. Dionysius*, on its eastern side, standing in the route which conducts you to its summit.

Proceeding along shore from *Cape Kissova*, a N. W. $\frac{1}{2}$ W. (*N. W. $\frac{1}{2}$ N.*) course will take you to the entrance of the *River Peneus*, now *Salymphria*, which is distant from the *Cape* 11 miles, and flows through the celebrated *Vale of Tempe*, situated between the *Mountains of Olympus* and *Ossa*; the mouth of the river is nearly closed by an extensive barrier of sand.

About 5 miles beyond the *River Salymphria* are the *Town and Castle of Platamona*, a large and irregular group of buildings, surrounded by a wall, and standing on a rocky point of land overhanging the sea. From hence to the upper part of the *Gulf of Salonica*, on the N. W. and north sides, the land is low, and covered with extensive marshes, within which are situated several villages of little or no note; and towards the top of the *Gulf* are two considerable rivers, *Vistritza*, now *Caraisinak*, and *Vardar*. It is hereabout the ancient confines of Greece terminated; and here the modern division takes place between *Thessaly* and *Salonica*.

SALONICA, the capital of the province, is situated in latitude $40^{\circ} 38' 47''$ N., and

longitude $22^{\circ} 57' 13''$ E., and still possesses a considerable commerce. "The approach to the city from the sea," says Mr. Holland, "is very imposing when seen from a great distance, placed on the acclivity of a steep hill, which rises from the north-eastern extremity of the *Gulf*, surrounded by lofty stone walls, which ascend from the sea in a triangular form, and surmounted by a fortress with seven towers. The domes and minarets of numerous mosques rise from among the other buildings, environed as usual by cypresses, and giving a general air of splendour to the place. In approaching the City, we passed among the numerous vessels, which afforded proof of its growing commerce; and at six in the evening came up to one of the principal quays, the avenues of which were still crowded with porters, boatmen, and sailors, and covered with goods of various descriptions." "*Salonica*," says the same writer, "is exceeded in population only by *Constantinople*, and perhaps *Adrianople*, among the Cities of European Turkey; and in the extent of its commerce, is probably second to the capital alone. The circumference of the City is more than 5 miles. The quays are covered with goods; numerous crowds are employed about the shipping, and the bazaars are well stocked and well attended. The population in its present state exceeds 70,000, and appears to be on the increase. The principal exports consist of corn, cotton, tobacco, timber, and wool. The imports consist of sugar, coffee, dye-woods, indigo, cochineal, muslins, printed calicoes, iron, lead, tin, watches, &c. The vessels at *Salonica* lie at anchor before the town; and the form of the *Gulf* renders the anchorage a secure one, while its access is by no means difficult. The port is at the mouth of a river navigable for large vessels; but there are pilots to take charge of all ships coming from the southward. The best anchorages in the *Gulf* are on the eastern side, which may be taken when working either up or down; but there are several shoals about the projecting points, which must be carefully avoided.

THE GULF OF CASSANDRIA is situated to the eastward of the *Gulf of Salonica*, from which it is separated by a peninsula of high land; its south-western point is named *Cape Pailliouri*, and its south-eastern point *Cape Drepano*, in latitude $39^{\circ} 56' 53''$ N., and longitude $23^{\circ} 57' 15''$ E. These *Capes* bear from each other E. by N. and W. by S. (*E. $\frac{1}{4}$ S. and W. $\frac{1}{4}$ N.*), distant 8 miles. The *Gulf* runs in N. W. (*N. N. W. $\frac{1}{4}$ W.*), becoming wider as you enter within it. There is no place in this *Gulf* where much commerce is carried on; but there are some anchorages on its northern side, and also on its eastern shores, behind some islands; or at *Port Conf*, which latter roadstead, lying just within *Cape Drepano*, is most commonly resorted to in cases of emergency; for from thence vessels can most readily put out again to sea, and get clear of the land.

THE GULF OF MONTE SANTO. This lies to the eastward of *Cassandra*, runs in a similar direction, and is of nearly a similar extent. It is bounded on the south-west by *Cape Drepano*, and on the S. E. by *Cape St. George*, or *Nymph*, which bear from each other N. E. by E. and S. W. by W. (*E. N. E. $\frac{1}{4}$ E. and W. S. W. $\frac{1}{4}$ W.*), distant 17 miles; it contains several anchorages, both on its western side, by and behind the *Island Diaphori*, and on the opposite side, by the *Island Monillari*. There is no town of note within this *Gulf*, and therefore it is seldom resorted to, except for occasional anchorage. The promontory which forms the eastern side of the *Gulf* is very lofty, and near its southern extremity is the celebrated *Mount Athos*, of antiquity, now called *Monte Santo*, which is 4000 feet above the level of the sea, and visible at sunset from the Asiatic shore. Its summit is in latitude $40^{\circ} 9' 29''$ N. and longitude $24^{\circ} 19' 53''$ E. *Monte Santo*, so named from the number of convents and monasteries about it, which are said to amount to 24, all well-endowed and extensive buildings, is visible from *Cape Sigri*, in the *Island Mytelin*, in clear weather, and is equally conspicuous at a similar distance all round, forming a continual object of observation for the navigation of these parts.

GULF OF ORPHANO, or CONTESSA. Having rounded the *Peninsula of Monte Santo*, the shores run N. W. (*N. N. W. $\frac{1}{4}$ W.*) about 22 miles, to *Cape Kiliantari*; W. by N. (*W. N. W. $\frac{1}{4}$ N.*) from which, distant 4 miles, are the *Staclara Island and Rocks*, which form the southern part of the *Gulf of Istilar*. N. W. $\frac{1}{4}$ N. (*N. N. W. $\frac{1}{4}$ W.*) from the *Staclara Islands*, are the *Lephrite Island and Rocks*, forming the northern part of the *Gulf*, which bends in circularly from these two points, and occupies an extent of full 10 miles, having at its southern part a convenient roadstead, well sheltered on the east by the *Island and Rocks of Staclara*.

N. by E. (*N. N. E. $\frac{1}{4}$ E.*) from the *Lephrite Island*, distant 13 miles, is *Cape Orphano*, the northern boundary of the *Gulf of Orphano*, which thence runs in to the

north-westward. About 8 miles to the N. W. (N. N. W. $\frac{3}{4}$ W.) of *Lephrite Island* is the *Isle of Limpiada*, or *Efazanos*, having a *sunken rock* on its inner side: beyond which is the little *River of Betchik*; on the southern banks of this is the *Village of Stavros*. On the opposite side of the *Gulf* is the *Town of Orsova*. Here, on the northern shore, stands the modern *Town of Orphano*, built about 4 miles to the eastward of the *River Strouma*, where the *Contessa, Elione*, and *Amphipolis* formerly stood, and now remain in ruins. Vessels which frequent this place, take in cordage, &c. From hence the shores round to *Telfere Liman*, or *Eske Kavallo*, where there is a small port. About 7 miles N. N. E. $\frac{1}{2}$ E. (N. E. $\frac{1}{4}$ N.) from *Telfere Liman* is the *Town of Kavallo*, before which you may anchor in 8 or 10 fathoms, protected by a castle. The coast now bends circularly 10 miles towards *Cape Andropos*, and then turns directly east (E. S. E. $\frac{1}{4}$ E.) for $8\frac{1}{2}$ miles to *Cape Asperosa*. Opposite, and to the southward of the *Cape of Andropos* is the *Island of Thaso*, separated from the main by a strait full 3 miles wide, and having 14 and 15 fathoms water within it. This passage is clear from danger, and only obstructed by the *Thaso Poulo*, which is situated about mid-channel.

THASO. This island is of a square form, being about 13 miles in extent each way; its surface is traversed by high hills covered with forests, affording large quantities of timber for ship-building. Its soil is fertile, and produces, where cultivated, corn, fruit, oil, and wine; it also exports wax, honey, and fine marble. The inhabitants are Greeks, but the population is at present slender. On the N. E. side there is a village, and a good roadstead, where vessels may ride in from 12 to 5 fathoms; the ground holds well, and you are protected by the points of the bay, the little *Island of Thaso Poulo*, and the main land. It is said to be capable of containing a large fleet, and you may run for it in any weather, as there is no danger in going round either the west or east sides of the island. Observe, in the former case, going by the westward, to give a berth to the low point you will see covered with olive-trees, because it shoals a little way off; and do the same in passing the western point of the bay. As you proceed, you will see the white water so far as it shoals off both places.

On entering either way, you will have regular soundings, and may safely proceed by your lead. This place may be known by the *Thaso Poulo* lying between it and the main, and by the high old tower at the bottom of the bay. It may also be recognised, in running in from the eastward, by the Ruins of an ancient Castle on its eastern point. You may work through the strait either between *Thaso Poulo* and the main, or between *Thaso Poulo* and *Thaso*; they are both clear from danger: the former channel is the widest. Water may be had a little to the westward of the old tower at the bottom of the bay, and wood is plentiful. There are regular soundings all along on the west side of *Thaso*, and across from thence to the main: in short, as the ground is all good, you may anchor any where. Off the southern part of *Thaso* are the *Fenor Isles*; they are small, and lie near the shore, having no passage between, except for small vessels. The summit of the highest hill in *Thaso* is in latitude $40^{\circ} 42' 2''$ N., and longitude $24^{\circ} 42' 40''$ E.

LAGOS. N. E. (E. N. E. $\frac{1}{4}$ N.), distant 22 miles from the N. E. end of *Thaso*, is the *Port of Lagos*, where small vessels may anchor in 5, 4, and 3 fathoms. On your larboard point in entering, you will see an old tower, and on the starboard side are some others; here on this side a sandbank runs out, which you must always be careful to avoid.

GULF OF ENOS. From *Lagos* an E. S. E. $\frac{1}{4}$ E. (E. S. E. $\frac{1}{4}$ S.) course will take you to the *Gulf of Enos*, which is $15\frac{1}{2}$ leagues distant. In your passage you will see several villages on the coast; but these are little known as places of any commerce. The port, or as it is called, the *Gulf of Enos*, has a very narrow entrance; but when within, it expands, and runs in 14 or 15 miles, in an E. N. E. $\frac{1}{4}$ N. (E. N. E. $\frac{1}{4}$ E.) direction. The town stands upon a point of land on the southern shore, and is said to carry on a considerable traffic with the adjacent country, for which its harbour is commodiously formed, and conveniently situated. At the northern part of the *Gulf*, the *River Maritza* disembogues its several streams, and forms a channel, which runs to the northward of the *Gulf*; and near its mouth is carried on a considerable fishery.

GULF OF SAROS. From *Enos* the coast runs southerly nearly $3\frac{1}{2}$ leagues to *Cape Paxi*, in latitude $40^{\circ} 36' 0''$ N., longitude $26^{\circ} 5' 0''$ E. This is the northern boundary of the great *Gulf of Saros*, which is broad and extensive, running in easterly full 12 leagues. At its further end are the *Saros Isles*; and there are several towns and villages within it, but we know not of any place of commerce. There is deep water throughout the whole *Gulf*, and no known or hidden danger. The southern shore runs out towards *Cape Stilia*, nearly in the direction of W. S. W. $\frac{1}{4}$ S. (W. S. W. $\frac{1}{4}$ W.),

and then S. $\frac{1}{2}$ W. (S. S. W. $\frac{1}{4}$ S.) about 6 leagues, to *Cape Greco*, which is the N. Western point of the Channel of the *Dardanelles*; before we describe which, we shall notice the *Islands of Samothraki, Imbros, Lemnos, and St. Estrate*, which are part of the northern Islands of the *Archipelago*.

SAMOTHRAKI is an oval-shaped island, about 8 miles in length from E. to W., and 6 miles broad. The appearance of this island is mountainous and rocky; there is no port or harbour, but several roadsteads. Not far from its north-western point is an *old castle* in ruins; and at its S. W. end, a *village*: another is on its S. E. side; and occasional anchorage may be found in various parts. The summit of the highest hill in *Samothraki* is in latitude $40^{\circ} 26' 57''$ N., longitude $25^{\circ} 35' 54''$ E. Its S. E. point bears from *Cape St. George, or Nymph*, E. N. E. $\frac{1}{4}$ E. (E. $\frac{1}{4}$ N.), distant 22 leagues; from *Cape Paxi*, W. S. W. $\frac{1}{4}$ S. (W. S. W. $\frac{1}{2}$ W.), distant 7 leagues; and from *Point Aulaca* in *Imbros*, North (N. by E. $\frac{1}{4}$ E.), distant 22 miles.

E. by S. (E. S. E. $\frac{1}{4}$ S.), distant 5 miles from the S. E. end of *Samothraki*, lies a *sunken rock*, which is said to be about 40 fathoms across, and at a little distance appears like a ripple of the current. There are 5 fathoms water close to it, and 10 and 15 about a cable's length from it.

IMBROS. This island lies to the southward of *Samothraki* about 14 miles, and is both larger and longer, being 16 miles in length, east and west, and 9 miles in breadth, but not so high as *Samothraki*, although moderately elevated. It is woody, and said to abound in game. There are five villages upon it, and a population of 1000, who are principally Greeks. The summit of its highest mountain is in latitude $40^{\circ} 10' 36''$ N., longitude $25^{\circ} 51' 20''$ E. From its S. W. point *Cape Janissary* bears E. by S. $\frac{1}{4}$ S. (E. S. E. $\frac{1}{4}$ S.), distant 21 miles; and *Point Blava* in *Lemnos* W. by S. (W. $\frac{1}{4}$ N.), 14 miles; and from its S. eastern point *Cape Greco* bears S. E. (S. S. E. $\frac{1}{4}$ E.), distant 9 miles, and *Cape Stala* in *Lemnos*, S. W. by S. (S. W. $\frac{1}{4}$ W.), 14 miles.

LEMNOS. This island, called by the Turks *Stalimene*, is situated in the middle of the *Egean Sea*, and directly in a line between *Cape Drepano* and *Cape Janissary*. It is of an irregular form, and almost divided into two islands by the indentations of *Port Paradise* on the north, and *Port St. Antonio* on the south. The land is low, and mostly level, with the exception of two mountains; one on the south side, the other situated towards the western part of the island, called *Mount Thermia*, which appear to have been volcanoes. These mountains, when you are at a distance, either southward or northward, give the resemblance of two islands. From its S. E. point, called *Cape Stala*, or *St. Nicolas*, to the N. E. point of the *Island, Point Blava*, the distance is 5 leagues, and that is also the breadth of the island, from E. to W. It is dry, and barren towards the north and north-east, but fertile, with several springs, though no rivers, on the south and west. The *Town of Lemnos* stands on the western side, within a sort of cove, but there is no harbour. The population of the whole island is about 8000, mostly Greeks; but these are subjected to the Turkish Government, and principally employed in maritime concerns, so that the island is not cultivated in the most productive manner: yet, though there is a deficiency of water, they produce some corn, oil, cotton, silk, wine, and considerable quantities of fruit; it also affords a sort of mineral earth, called *terra Lemnia*.

THE PORT OF ST. ANTONIO is situated on its southern side, as before observed, and has a very good road, sheltered from all winds but those from the S. E. and S. S. E. A vessel, coming from the east, or south-eastward, with an E. or N. E. wind, should observe the two hills before mentioned; and with a north-easter, should anchor under the easternmost. Should you go into *Port Antonio* with a S. W. wind, you may run close to the western shore, where the riding is good. In sailing for this port, do not approach too near the land until you open the haven, which having done, steer in mid-channel; for a *rocky reef* stretches out from the eastern point, and there are two small rocks above water, at the western point. Your course in will be nearly N. $\frac{1}{4}$ W. (N. $\frac{1}{4}$ E.) for 3 miles, the depth being 12, 15, and 16 fathoms: you may readily perceive the shoal at the eastern point of entrance, by the colour of the water. The bank is uneven; so that at one cast of the lead you may have 10 and 9 fathoms, and at the next only 3 or 4; but abreast of it, or having passed within it, you will have 12 fathoms: then luff up into the bay, and anchor wherever you please. There is good riding by bringing the east point of the bay S. E. $\frac{1}{4}$ E. (S. E. by S.), and the west point W. S. W. $\frac{1}{4}$ S. (W. by S.), in from 16 to 10 fathoms water; but if the wind should be from the S. W., then run further up the harbour, and anchor off the western shore. There is also good riding before a village at the northern part of the harbour; but do not go too near the northern shore, for there it becomes shallow. The little *Port of Coudia* is to the westward of *Port St. Antonio*, and only fit for small craft,

being too narrow for shipping. The eastern coast of *Lemnos*, particularly at its northern part, is very dangerous, having extensive reefs stretching out from it full 10 miles; these reefs are divided into two parts by a channel, with 8, 9, and 10 fathoms water within them. The ground hereabout is all uneven, for at one east of the lead you will have 10 and 1 fathoms, and the next only 4 or 3 fathoms; but at the outer edge of the reefs it deepens to 15 and 14 fathoms. The channel here from *Lemnos* to *Tenedos* is 25 miles wide; but no vessel ought to come nearer to *Lemnos*, in passing, than 12 miles, particularly as the current from the *Dardanelles* sets directly upon these reefs. Between the southern part of these reefs and *Cape Stala* there is a roadstead, where vessels may occasionally anchor, and wait for a favourable opportunity to sail for the *Dardanelles*: they will ride before the *Castle* in 12 fathoms. Here is the arsenal, and a little circular harbour for small craft, the entrance to which is very narrow.

The north-eastern part of *Lemnos* has a low and barren appearance, and off *Point Blava* is a rock under water.

PORT PARADISE. This port, as observed before, lies at the northern part of the island, and is a wide and extensive opening running to the south-west: there are good depths of water within it, but it is open to the northerly winds. *Point Blava*, the N. E. point of *Lemnos*, is in latitude $40^{\circ} 2' 0''$ N., and longitude $25^{\circ} 28' 0''$ E.; *Cape Stala*, in latitude $39^{\circ} 47' 30''$ N., longitude $25^{\circ} 23' 30''$ E.; and *Paleo Castro*, the N. W. point, in latitude $39^{\circ} 59' 0''$ N., longitude $25^{\circ} 2' 30''$ E. Vessels passing to the eastward of *Lemnos*, will see the lofty *Mount Athos* towering above the island.

From *Cape Stala* to the N. W. point of *Tenedos*, the bearing and distance are E. $\frac{1}{2}$ N. E. $\frac{1}{2}$ S., 26 miles; and from *Cape Stala* to *Cape Janissary* E. N. E. $\frac{1}{2}$ E. (E. $\frac{1}{2}$ N.), 11 miles.

ST. ESTRATE, OR HAGIOS STRATI. S. W. (W. S. W. $\frac{1}{2}$ S.) from *Cape Stala*, distant 7 leagues, is a small triangular island, about $5\frac{1}{2}$ miles in length, and 4 in breadth, of moderate height, and rising up in the middle; its summit being in latitude $39^{\circ} 31' 0''$ N., and longitude $25^{\circ} 2' 0''$ E. On the western side is a village, and a roadstead where there is occasional anchorage, sheltered from the northerly winds. On its S.-E. side are said to be two low islets, and off its southern point a rock under water. There is also reported to be a sunken rock between *St. Estrate* and *Lemnos*, but this is doubtful.

SECTION XIII.

THE ISLAND OF CANDIA, WITH THE ADJACENT ISLANDS OF CASO, SCARPANTO, &c.

Variation One Point and a Quarter West.

CANDIA. This is one of the largest islands in the *Mediterranean*, and situated to the south-eastward of the *Morea*, and to the southward of the *Archipelago*. It is the ancient *Isle of Crete*, and now called by the Turks, and its present inhabitants, *Criti*, or *Kirit Adassi*. It lies E. by S. and W. by N. (E. S. E. $\frac{1}{2}$ S. and W. N. W. $\frac{1}{2}$ N.), being 46 leagues in length, and of irregular breadth; its widest part, which is near the middle of the island, is 11 leagues broad, but further east it is only 2 leagues across. The island is divided into three districts, *Canea*, *Retymo*, and *Candia*, these according with the three principal towns of those names; but its capital, or chief town, is *Candia*, where the Governor resides, and where the export commerce is solely conducted. The greatest part of *Candia* consists of rocky mountains, the most remarkable of which is the ancient *Mount Ida*, now called *Psilorite*, standing near the centre of the island, its summits being commonly covered with snow, especially during the winter. Near this is the famous labyrinth. The northern parts of the island are the most cultivated, and the furthest advanced in improvement; the climate is healthful, and the soil fertile. There are no large rivers, but plenty of small rivulets, which descend from the mountains, and furnish the inhabitants with an ample supply of good water. In winter, particularly during December and January, heavy rains commonly fall, but are seldom accompanied by snow or frost; and in summer the heats are tem-

pered by diurnal sea-breezes, which blow from 8 or 9 o'clock in the morning till the same hours in the evening, the directions of which vary on the different coasts, being from the north on the northern coast, and from the S. W. on the southern coast. But the land-winds on the northern shores, and particularly towards its eastern part, are deleterious, and sometimes even suffocate persons exposed to their first onset.

Under the Turkish Government, property in this island is always insecure, and a general and beneficial cultivation is repressed; but still it yields abundance of fruits, oil, wine, raisins, saffron, honey, wax, almonds, flax, liquorice, &c. Its vegetable productions are excellent, and its mountains are covered with forests and aromatic plants, particularly the Dictame, celebrated for its medicinal virtues, and which is said to be the production of this island only. The rivulets are bordered with roses, laurels, and myrtles, and the vallies covered with orange, lemon, almond, and other fruit-trees. There are manufactories of soap and silk; cotton and grindstones may also be reckoned among its articles of exportation. But, in order to prevent smuggling, these objects must all be consigned to the *Port of Candia*; and this restriction greatly augments their price, on account of the expence of transporting them from different parts of the island. Much of the oil and wax is carried by French vessels to *Marseilles*; soap and cheese are sent to *Constantinople*, and the ports of *Asia Minor*; honey to *Constantinople* and *Egypt*; raisins and other fruits to *Syria* and *Egypt*; while their flax-seed mostly is exported to the ports of *Italy*. The duties vary to different nations, and in 1814 were $2\frac{1}{2}$ per cent. to the subjects of Turkey, 3 per cent. to Europeans, and 5 per cent. to Jews and Armenians.

The population of this island is about 280,000, more than 100,000 being Turks; the rest are chiefly Greeks, with about 2 or 300 Jews. It was formerly much more numerously inhabited, and its commerce of considerable magnitude; but under the Ottoman Government it has dwindled to comparative insignificance.

The northern shores of *Candia* are indented with several *Bays*, some of which are of considerable extent; and it is observed, that when the wind has continued blowing strong from the westward, there will be a rise in the waters of two feet above their customary level; while with north, or easterly gales, there will be an equal fall of two feet.

CAPE BUSO, the north-western point of the *Island of Candia*, lies in latitude $35^{\circ} 36' 38''$ N., and longitude $23^{\circ} 35' 30''$ E., and bears from the south part of the *Island Cerigotto* S. E. $\frac{1}{2}$ E. (S. E. $\frac{1}{4}$ S.), distant 18 miles. Directly off its point lies the *Island Grabusa Agria*; and to the westward of the *Cape*, close in to the land, is a lesser island, called *Grabusa*: these form a kind of harbour, sufficiently deep for the largest vessels, and protected by a fortress which stands upon the larger *Grabusa*. There is also another *Islet* to the W. S. W. $\frac{1}{2}$ W. (W. $\frac{1}{4}$ S.) of the *Cape*, distant 2 leagues; this is called *Sordi*, or *Petalida*: there are good passages between these islands, and deep water; but between *Grabusa* and the *Cape* only small vessels can pass.

GULF OF KISAMOS. E. N. E. $\frac{1}{2}$ N. (E. N. E. $\frac{1}{4}$ E.) from *Cape Buso*, distant $7\frac{1}{2}$ miles, is *Cape Spada*; this is high land, and visible at a considerable distance: between these two *Capes* is the entrance to the *Gulf of Kisamos*, which takes its name from a village and castle in ruins, situated at its further end. To the westward of these is another village, called *Messonia*, or *Aspro-lomania*. There is no good or safe anchorage in these *Bays*; the water is too deep, and it is open to the northward.

BAY OF CANEA. E. S. E. $\frac{1}{2}$ E. (E. S. E. $\frac{1}{4}$ S.) from *Cape Spada*, distant 20 miles, is *Cape Maleka*, high and steep-to; between them is the *Bay of Canea*, wide and deep. Here, at the south-eastern part, is situated the *Town of Canea*, containing about 7 or 8000 inhabitants; its streets are regular, and furnished with fountains; it is fortified, and has a wall and ditch, with some batteries: there also is a pier, admitting nine or ten vessels of 100 tons each; but larger vessels must lie in the roads outside, and consequently too much exposed for safety. A considerable trade was heretofore carried on by the French for oil; but this is now removed to *Candia*. About 5 miles W. N. W. $\frac{1}{4}$ N. (N. W.) from the *Town of Canea* is the *Island of St. Theodore*, having the ruins of some fortifications upon it, and a little rock off its north-eastern end. The road is to the south-eastward of *St. Theodore*, and you must sail into it on the eastern side; for there appear to be some rocks between it and the main, which will prevent your passing to the southward of the island. The anchorage is close to the island, where you may ride with your side almost touching the shore, on good clean ground, the eastern point of the island bearing N. E. $\frac{1}{2}$ N. (N. E. by E.), and *Cape Maleka* E. N. E. $\frac{1}{4}$ N. (E. by N.)

GULF OF SUDA. Having well rounded *Cape Maleka* and *Point Kryphto*, you

will open the *Gulf or Bay of Suda*, the entrance to which is 5 miles wide, and bounded on the southward by *Cape Drapano*. This *Bay* runs in W. $\frac{1}{2}$ S. (W. $\frac{1}{2}$ N.), 9 or 10 miles. There are some *islets* lying within it, near the northern shore; on the western *islet* are a *castle*, and several *batteries*, cut in the solid rock, in tiers: these command the *Bay*, but are themselves commanded by the main land, which is only a quarter of a mile off. There is also a *village* situated upon this island, near which large vessels may anchor in 12 or 14 fathoms, clean ground; but further out the depth increases to 30 and 40 fathoms, and the bottom becomes rocky: when you get above the island, the width of the *Bay* diminishes to one mile, and the depth to 25, 15, and 10 fathoms, the latter being near the shore. The *Town of Suda* is on the southern shore, and fresh water may be had from the further end of the *Bay*, or on the northern side. Having passed *Cape Drapano*, the coast turns S. by E. (S. $\frac{1}{2}$ W.) towards the *Bay of Armyro*, and then East (E. S. E. $\frac{1}{2}$ E.) to *Retymo*.

RETIMO. This is a well-built town, defended by a *citadel*, which is built upon a rock that projects into the sea, but is commanded by a hill behind. It bears from *Cape Drapano* S. E. by E. (S. E. $\frac{1}{2}$ S.), distant 12 miles, and is in latitude $35^{\circ} 22' 17''$ N., and longitude $24^{\circ} 28' 12''$ E. Its port is of little utility, and nearly choked up with sand; but the town is said to have a population of 6000. It has no export trade, the inhabitants being for the most part employed in agriculture, gardening, and making soap from olive-oil, or in the culture of the vine, the produce of which is commonly sent to *Candia*. The coast to the eastward of *Retymo* extends about 7 miles to *Airio*, and then turns N. E. $\frac{1}{2}$ E. (E. N. E. $\frac{1}{2}$ N.) to *Cape Retymo*. This is a prominent point running out to seaward, and having on its western side the *Village of Atali*: the land from thence is high and cliffy so far as *Cape Sassoso*, which lies East (E. S. E. $\frac{1}{2}$ E.), distant 16 miles from *Cape Retymo*: a broken and irregular shore succeeds, for four miles, to *Point Fraschia*, which is the western boundary of the *Bay of Candia*.

THE BAY OF CANDIA. This bay is situated between *Point Fraschia* and *Cape St. John*, bearing from each other E. $\frac{1}{2}$ S. and W. $\frac{1}{2}$ N. (E. S. E. and W. N. W.), distant 12 leagues. The *City of Candia*, the capital of the island, is in latitude $35^{\circ} 21' 0''$ N., longitude $25^{\circ} 8' 0''$ E., and contains 13,000 inhabitants, chiefly Turks: it is defended by walls, trenches, and outworks; but the houses have a mean appearance, and the harbour with the pier, once capable of accommodating 40 or 50 merchantmen, is, by neglect, now filling up with sand, and only can admit 8 or 10 vessels: it is formed by two rocky points, which extend out to seaward. The soap-works here are very considerable. N. E. by N. (N. E. $\frac{1}{2}$ E.) from the *City*, distant two leagues, is the *Island of Standia*, which is about 4 miles in length, and 2 miles in breadth, being lofty, barren, and uninhabited: there are three little harbours on its southern side, the western one being the worst; the centre one, called *Port de la Madonna*, is the best. Here vessels which cannot enter the *Port of Candia*, discharge their cargoes into boats: you will ride with a fast on shore. There is also a *roadstead* on the east side of the island: this is well sheltered from the N. W. round by west, to the south; but it is quite open to the eastward. Off the N. western side of *Standia* is a rock above water, called *Petalida*, steep all round; and E. by S. (E. S. E. $\frac{1}{2}$ S.) from *Standia*, distant $2\frac{1}{2}$ miles, is another rocky *islet*, named *Paximada*; between them are 10 and 12 fathoms. To reach the *Port or Haven of Candia*, you may sail on either side of the *Islands of Standia* and *Petalida*: the entrance to the haven is narrow; and going in from the *roadstead*, you will have from 20 to 4 fathoms water; but at the entrance of the haven there are not more than 13 or 14 feet. On the S. eastern side is a *mole*, and on the N. E. a *castle*. If desirous of riding within the *mole*, sail nearer to it than to the opposite side, by which you will have the benefit of the deepest water: so soon as you are well within it, luff up, and anchor, riding with two fasts on shore, and two anchors astern, towards the *City*. *Mount Ida* brought S. W. by W. $\frac{1}{2}$ W. (W. by S.) will lead directly in.

E. $\frac{1}{2}$ S. (E. S. E. $\frac{1}{2}$ E.) from the *Road of Candia*, distant 11 leagues, is *Cape St. John*, forming a narrow and sharp point, which projects out to the N. eastward. In sailing along this part of *Candia*, you will pass the *Rivulets of Cartero*, *Gurnes*, *Aposelemi*, and others; and also the *Villages Trapsano*, *Stalida*, *Maglia*, and *Milata*. But in the offing, N. E. by E. (E. N. E. $\frac{1}{2}$ E.) from the *Island Standia*, distant 20 miles, and N. N. W. $\frac{1}{2}$ W. (N. by W. $\frac{1}{2}$ W.) from *Cape St. John*, distant 22 miles, is a large, round, barren rock, called *Ovo*, or the *Egg Island*, lying in latitude $35^{\circ} 37' 30''$ N., and longitude $25^{\circ} 34' 30''$ E.: it has deep water all round it, and no danger whatever.

From *Cape St. John*, in latitude $35^{\circ} 19' 10''$ N., the coast bends in S. S. W.

(S. W. $\frac{1}{2}$ S.) for 11 miles. A little within the *Cape* is the *Harbour of Spinalonga*, affording good shelter for coasting vessels. About 7 miles to the southward of *Spinalonga* is the *Fort of Mirabella*, in ruins: here also are the remains of the *village*, before which there is a *roadstead* sheltered by two islands, and now little frequented. E. S. E. (S. E. $\frac{1}{2}$ E.) from *Cape St. John*, distant 17 miles, are the *Gulf* and *Town of Settia*, surrounded by ruins. N. N. E. $\frac{1}{2}$ N. (N. N. E. $\frac{1}{2}$ E.) from this place are the *Yanis* or *Janissary Islands*, consisting of four in number: the southernmost is about $3\frac{1}{2}$ miles in length, and very narrow, being called *Giagnizades*; the next *Prazamadaquia*; the northernmost is named *Cozucay*; and the other is merely a barren rock: these islands contribute to shelter the vessels which resort to the anchorage of *Settia*.

CAPE SIDERO, the N. eastern point of the *Island of Candia*, lies in latitude $35^{\circ} 17' 40''$ N., and longitude $26^{\circ} 18' 40''$ E.: it bears directly East (E. S. E. $\frac{1}{2}$ E.) from *Cape St. John*, distant 25 miles, being the extremity of a hilly promontory which stretches out to the north-eastward. S. E. by S. (S. by E. $\frac{1}{2}$ E.) from the *Point of Cape Sidero*, distant 4 miles, is the little *Elas*, or *Lassa Island*, to the S. W. by S. (S. W. $\frac{1}{2}$ W.) of which is the *Gulf of Paleo Castro*, within which are three small *islets*: here, if occasion require, you will obtain good anchorage, and small vessels can ride under the islands.

THE ISLANDS CASO, SCARPANTO, &c. To the eastward of *Cape Sidero*, distant 27 miles, is the larger *Isle of Caso*, being about 11 miles long, and 5 or 6 miles broad; its surface is uneven and rocky. At its northern side is a little *Bay*, sheltered by several *islets*, the principal of which is called *Caso Poulo*: here a *village* is situated, consisting of about 100 houses, and occupied by Greek fishermen. There is but one practicable landing-place, where a little basin has been formed for the reception of boats. A small spring of good water exists upon the island, but the inhabitants place greater dependance upon rain-water preserved in cisterns. The natives cultivate a little corn, and grapes, which they make into wine for their own consumption. The *South Point of the Island* is in latitude $35^{\circ} 18' 20''$ N., longitude $26^{\circ} 52' 35''$ E.

SCARPANTO. To the north-eastward of *Caso* lies the *Island Scarpanto*, a long and narrow island, lying in a semicircular form, and extending north and south full 27 miles, while its breadth is not more than 6 miles: its appearance is rocky and mountainous, and contains quarries of marble and mines of iron. Its inhabitants are Greeks, but under the controul of Turkey. Here it is said game and cattle are plentiful. There are two *harbours* on the eastern side of the island: the one, called *Port Pernisi*, is near its southern end; the other, *Port Avedmo*, is near the middle of the island: in both of these you will find good shelter from West, S. W., N. W., and N. E. winds. There is also the *Port of Scomaco* at the north end of the island, which is formed and sheltered by the *Island Scarpathon*; but this is open to the northward. *Port Grato* is on the S. W. side; but this is very shallow, and fit only for small vessels. The passage between *Caso* and *Scarpanto* is 3 miles wide, but encumbered by *rocks*, one of which is under water, and may be known by the water rippling over it, though when there is a sea, the breakers shew themselves: vessels therefore commonly avoid this *channel*; but should they intend going through it, they ought always to keep nearer to *Caso* than to *Scarpanto*. The *channel* between *Caso* and *Candia* is wide, and without any danger whatever; as also is that between *Scarpanto* and *Rhodes*. *Cape Thoantium*, or the *South Point of Scarpanto*, is in latitude $35^{\circ} 23' 30''$ N., and longitude $27^{\circ} 12' 55''$ E. *Cape Bonandreo*, the north point, is in latitude $35^{\circ} 50' 30''$ N., and longitude $27^{\circ} 7' 0''$ E.

W. by N. (W. N. W. $\frac{1}{2}$ N.) from *Cape Bonandreo*, are the *Stazida Islets*, or *Rocks*, three in number. W. N. W. (N. W. $\frac{1}{2}$ W.) from the same *Cape*, distant 37 miles, are the *Placa rocky Islets*; S. by E. (S. $\frac{1}{2}$ W.) from which, distant 15 miles, are others, called the *Adelphia Isles*. W. $\frac{3}{4}$ N. (W. N. W. $\frac{1}{2}$ W.) from the *Adelphia Isles*, distant 11 or 12 miles, is the *Island Plana*. All these, with several others, are small *rocky islets*, many of them just appearing above water, but with deep water all round.

Having noticed these, we now return to the *Island of Candia*.

CAPE SALOMON, the *Eastern Point of Candia*, lies in latitude $35^{\circ} 9' 15''$ N., and longitude $26^{\circ} 19' 25''$ E. It is high land, which continues to the southward to *Cape Xarco*, or *Yala*; this forms the S. E. *Point of Candia*, and is in latitude $35^{\circ} 3' 0''$ N., and longitude $26^{\circ} 15' 25''$ E. Between these *Capes* is the *Gulf of Carouba*, quite open, and having no safe anchorage.

The *Southern Coast of Candia* is altogether high and steep, being in some places inaccessible. Having rounded *Cape Xarco*, you will see a cluster of small *islands*,

1 the *Christiana*, or *Kouphonisi Islands*; these bear from *Cape Xarco* S. W. by S. (*N. W. $\frac{1}{2}$ W.*) nearly 10 miles, but they are distant only 3 miles from the nearest : the channel between is safe, but it will always be more advisable to pass to the ward of them. N. W. by W. (*N. W. $\frac{1}{2}$ N.*) from the *Christiana Isles*, distant les, is *Cape Gialo*, or *Langada*. W. by S. (*W. $\frac{1}{2}$ N.*), distant 16 miles from *Cape*, are the *Gaidronisi* or *Calderoni Islands*, in latitude $34^{\circ} 52' 35''$ N., and longitude $25^{\circ} 43' 15''$ E. This group is composed of one larger islet, and several smaller about it; these lie 10 miles off shore, with the *Town* and *Fort of Girapetru* ng N. N. E. (*N. E. $\frac{1}{2}$ N.*)

rom *Cape Gialo* to *Cape Matala* the course and bearing are West a little southerly by *N. nearly*), 65 miles. Within this space there is no harbour or place of shelter ipping to run into; but several *rivulets* and *villages* appear on the coast as you long it. *Cape Matala* is in latitude $34^{\circ} 55' 5''$ N., and longitude $24^{\circ} 45' 5''$ E. he N. W. $\frac{1}{2}$ W. (*N. W. $\frac{1}{2}$ N.*) of *Cape Matala*, distant 9 miles, are the three *ides Islands*, lying in front of the *Bay of Messara*, but full 7 miles from the st land. W. $\frac{1}{2}$ S. (*W. $\frac{1}{2}$ N.*) from *Cape Matala*, distant 32 miles, is the *Island* o, the western point of which island is in latitude $34^{\circ} 52' 0''$ N., and longitude $24^{\circ} 0''$ E., being $4\frac{1}{2}$ miles in length, and not 2 in breadth: it is elevated, and its s are all round rocky, but there is deep water close in, and no danger. About les to the N. W. (*N. N. W. $\frac{1}{2}$ W.*) of *Gozzo* is a lesser island, called *Anti-Gozzo* : said that an extensive reef stretches off to the N. W. of *Gozzo*, having nume- *rocks* under water, which render the passage between the two islands extremely erous; but in navigating this part, the mariner will always find a good and safe ge between them and the *Island of Candia*, and this channel is full 5 leagues . From *Cape Matala* to *Cape Crio* the course and distance are W. N. W. $\frac{1}{2}$ W. (*N. W. $\frac{1}{2}$ N.*), 64 miles: between them is the *Town of Sphakia*; but neither *Bay of Messara* nor the *Port of Sphakia* affords either safety or shelter. *Cape Crio*, the S. W. extremity of *Candia*, is in latitude $35^{\circ} 18' 45''$ N., and longitude $23^{\circ} 32' 35''$ E. A little to the northward of the *Cape* is the small *Island of* i, lying close to the land, from whence the shore extends N. by E. (*N. N. E. $\frac{1}{2}$ E.*) t 20 miles, to *Cape Buso*. There is no good place of shelter on the western part *andia*, for *Port Stromio* is too open to the westward, and *St. Mark* affords no orage whatever: the little *Islet Pundico* lies close to the land, and $4\frac{1}{2}$ miles to outhward of *Cape Buso*. The channel between *Cape Buso* and the *Island Cerigotto* miles wide, with very deep water in it, but free from danger; it is therefore the common and best passage into the *Archipelago*.

SECTION XIV.

THE CYCLADES AND SPORADES, OR SOUTHERN AND EASTERN ISLANDS OF THE ARCHIPELAGO; INCLUDING THE ANATOLIAN COAST, FROM THE GULF OF SYMI TO THE GULF OF SMYRNA.

Variation One Point and a Quarter West.

RELIMINARY REMARKS. Before we proceed to give a description of the islands, it may here not be improper to observe, that the climate of the *Archipelago* nerally found to be more temperate than that of the adjacent Continents, winter g scarcely felt even in the northern islands, while the heat of summer in the ern ones is attempered by the northerly winds blowing over a large tract of sea : in this season, sudden squalls and thunder-storms are frequent, and often occasion damage. In winter the navigation is more or less dangerous; for the waves, e they have little room to expand themselves, form a confused sea, rising to a height, and breaking furiously against an opposing coast.

1. THE CYCLADES, COMPREHENDING THE ISLANDS SANTORIN, ANAPHI or NANPHIO, STANPALIA, POLYCANIRO, SYKENO, NIO, AMORGA, MILO, ARGENTIERI, SIPHANTO, PAROS, ANTI-PAROS, NAXIA, SERPHO, THERMIA, SYRA, DELOS, MICONI, TINOS, GHIOURA, &c.

SANTORIN. This island is situated between the latitudes of $36^{\circ} 20' 0''$ and $36^{\circ} 30' 0''$ N., and in about longitude $25^{\circ} 30'$ E. The length of *Santorin*, from north to south, is nearly 9 miles, and its breadth generally about 3 miles. It lies in the form of a crescent, the concave side being towards the west: within the two points are the *Islands Thorasia* and *Cameni*, with some of smaller dimensions. The whole of these islands are of volcanic origin, and have risen at different periods from the sea. *Santorin*, being almost entirely covered with pumice, ashes, and other volcanic substances, has a soil uncommonly hard, and difficult to labour. It is, however, now well cultivated, and made to produce barley, cotton, vines, almonds, figs, and various other fruits. Its population amounts to 12 or 13,000, all Greeks, but tributary to Turkey. There is said to be but one spring in the whole island; the inhabitants therefore deposit their rain-water in cisterns. Notwithstanding the natural barrenness of the soil, the natives contrive to export a considerable quantity of wine, which is chiefly sent to the different ports in the *Black Sea*: they also knit cotton stockings and night-caps, which are principally exported to *Italy*.

The *Bay of Santorin*, which, as we have already stated, is on the western side of the island, is sheltered by the *Islands Thorasia* and *Aspronisi*: the former is inhabited; the latter a mere barren rock. In the interior of the *Bay* are the *Caminis*, three volcanic rocks. In entering to the anchorage, you should steer between the *Islands Thorasia* and *Aspronisi*, where your depth will be 30 fathoms: proceed on to the southward of the *Caminis*, where you will have 36 fathoms; and turning round the southern island, anchor to the eastward in 33, or less water, rocky ground, but well sheltered every way. Almost the whole shores of this *Bay* rise perpendicularly from the sea, to the height, in many places, of 100 fathoms. The only landing-places are at *Aponomeria*, near the N. W. point, and at *Phiro*, near the middle of the *Bay*, from whence the produce of the island is exported: here small vessels make a fast to the shore. *Skauro*, the town, stands upon a projecting rock, about a mile to the northward of *Phiro*. It is said anchorage may be had near the S. E. end of the island, at *Cape St. Stephano*; but if such be the case, it must be quite exposed to all winds, except those from the N. W. *Mount St. Elias*, which is the highest part of the island, is in latitude $36^{\circ} 21' 56''$ N., longitude $25^{\circ} 28' 33''$ W.

CHRISTIANA, or ASCANIA. These are two *islets*, bearing from *Cape Arotis*, the S. W. Point of *Santorin*, S. S. W. (*S. W. $\frac{1}{2}$ S.*), distant nearly 8 miles. The summit of the largest of these *islets* is in latitude $36^{\circ} 14' 41''$ N., and longitude $25^{\circ} 18' 45''$ E.

ANAPHI, or NANPHIO. This island lies true East (*E. by S. $\frac{1}{2}$ S.*), distant 12 miles from *St. Stephano*, the S. E. end of *Santorin*, and continues in a similar direction for 2 leagues, being 3 miles broad; the summit of its highest hill is in latitude $36^{\circ} 22' 21''$ N., and longitude $25^{\circ} 47' 9''$ E. This island is said to have some excellent springs of fresh water; its rocky mountains are barren, nor are the plains much more fertile, a little wheat and oil being the sole productions. There is no port to this island; and the inhabitants, amounting to 1500, are chiefly the residents of a village situated upon the south coast. A great quantity of honey is collected at this island, and also of wax. Partridges are numerous; but the inhabitants are miserably poor. S. E. $\frac{1}{2}$ E. (*S. E. $\frac{1}{2}$ S.*) from the S. W. Point of *Anaphi*, distant $7\frac{1}{2}$ miles, is the *Island Anaphi Poulou*, between which and *Anaphi* is also another; and about 2 miles to the eastward of *Anaphi Poulou* are three others: these are only barren rocks, and uninhabited.

STANPALIA. This is an island of irregular shape, and almost divided into two parts, the east and the west. It bears from the S. E. end of *Anaphi* E. N. E. $\frac{1}{2}$ N. (*E. N. E. $\frac{1}{2}$ E.*), distant 23 miles; this is the general direction of the island also, which is about 12 miles long: upon its western half stands *Mount Viglia*, in latitude $36^{\circ} 32' 10''$ N., and longitude $26^{\circ} 19' 35''$ E. There are about 2000 inhabitants on this island: its chief products are wine, honey, and a little barley. Port *Stanpalia* is on the south side, where there is anchorage behind some small islands; and before this Port lie the *Kouco* or *Kounapi Islands*, between which and *Stanpalia* there is a good passage: the town is on this side of the island, and stands on a neck of land to the westward. The other harbour, called Port St. Andrew, or St. Antoine, is on the

north side of the island: this is an extensive opening, being from point to point 4 miles wide. In the centre of the *Port* are several islands. There are anchorages in some *coves*, both on the east and west sides of these islands, but they are little frequented, and the whole *Bay* is open to the north winds. To the westward of *Stanpalia* are two barren islands; that nearest is called *Pontikousa*, or *Tragonisi*, and is shaped like a heart: there are two rocks to the southward of this island. Three and a half miles to the westward is *Phidousa*, or *Hermonisi*, about 2 miles long, but without inhabitants.

POLICANDRO. This island lies between *Santorin* and *Milo*; its S. W. Point bears from *Cape Acrotiri*, in the former, N. W. by W. (*W. N. W. $\frac{1}{4}$ W.*) distant 8 leagues; and from the S. W. Point of *Milo*, E. $\frac{1}{2}$ S. (*E. S. E. $\frac{1}{4}$ E.*), 29 $\frac{1}{2}$ miles. It lies in a N. W. $\frac{1}{2}$ W. and S. E. $\frac{1}{2}$ E. (*N. W. $\frac{1}{4}$ N. and S. E. $\frac{1}{4}$ S.*), being 6 miles long, and 2 miles broad: the soil is rocky and mountainous, the *Peak* being in latitude 36° 37' 4" N., and longitude 24° 53' 5" E. There is no harbour, but anchorage may be had in a *Cove* to the S. E. The *Town* is on the N. E. side of the island, and enclosed by walls, near a vast perpendicular rock. This island is reported to have a population of above 2000. There is abundance of game, and a fair produce of good wine, with a little corn and some cotton. It is remarkable for being the common rendezvous for migratory birds, in their passage to and from the continents.

SYKENO bears from *Policandro's* S. E. Point E. N. E. $\frac{1}{4}$ E. (*E. $\frac{1}{2}$ N.*), distant 5 miles; but between them, midway, lies *Cardiotissa Island*, on the east and west sides of which are several other rocky islets of small dimensions: there is, however, deep water all around them, and the passage between *Policandro* and *Sykeno* is otherwise quite safe, and free from danger. *Sykeno* is a somewhat larger island than *Policandro*, lying N. E. $\frac{1}{2}$ E. and S. W. $\frac{1}{2}$ W. (*E. N. E. $\frac{1}{4}$ N. and W. N. W. $\frac{1}{4}$ S.*), being 8 miles long, and 3 broad. It is high, and the summit of its principal mountain is in latitude 36° 39' 51" N., and longitude 25° 6' 48" E. But although its population does not equal *Policandro*, the inhabitants produce barley, cotton, grapes, figs, and other fruits. The *Town* is situated near the S. W. end of the island, being romantically built upon a rock which overhangs the sea, and contains 2 or 300 inhabitants.

NIO, formerly *Ios*, lies to the eastward of *Sykeno*, from which it is divided by a channel nearly 4 miles broad. This island lies N. W. and S. E. (*N. N. W. $\frac{1}{4}$ W. and S. S. E. $\frac{1}{4}$ E.*), being in length 9 miles, and in breadth 4 miles. Like most of the other islands in the *Archipelago*, the body of the island is rocky, and its form mountainous, having a granitic base, with calcareous summits. But the inhabitants of this island are employed chiefly in cultivating the land; and by their continued industry the soil, naturally barren, has now become productive. The quantity of corn they grow is sufficient for home consumption; their cotton too is manufactured into stockings and caps, and sent to *Italy*. They also export wine, oil, wax, honey, and fruit. But what distinguishes them from the neighbouring islands is the pasturage that is afforded to rear goats, sheep, and horned cattle. The population may be reckoned at 4000: the major part are agriculturists; the remainder, seamen and fishermen.

The *Port* is on its western side, and is a tolerably fair harbour, with the town at its end, and a fountain with good water near the shore. History has consecrated this spot as the place where *Homer* died, and a monument was erected here to his memory; but of this very little remains at the present time. At the S. E. end of the island also is a *roadstead*, where vessels may lie in from 10 to 8 fathoms water, sheltered from the N. E. and N. W. winds.

AMORGA lies E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{4}$ N.*) from the S. E. end of *Nio*, distant 6 leagues; it lies in an E. N. E. $\frac{1}{2}$ N. and W. S. W. $\frac{1}{2}$ S. (*E. by N. $\frac{1}{4}$ N. and W. by S. $\frac{1}{4}$ S.*) direction, being 17 miles long, and about 4 miles broad at its centre. The country is generally mountainous and rocky; but the vallies produce corn, wine, olives, and other fruit. *Amorga* has two ports, both upon its northern side, *Port St. Anne* to the N. Eastward, and *Port Vathy* towards the N. West: these are little used by Europeans, and out of the usual track of vessels going either to *Smyrna* or the *Dardanelles*. The east end of *Amorga* is in latitude 36° 53' 30" N., and longitude 26° 6' 0" E.

AMORGA POULO, or **LITTLE AMORGA**, is in latitude 36° 36' 55" N., and longitude 25° 42' 34" E. It is a small island, lying in a central situation between *Anaphi*, *Santorin*, *Nio*, and *Amorga*, and affords pasturage for a few sheep, but has no habitation upon it. There is a little rock at its southern end.

MILO. Nearly West (*W. N. W. $\frac{1}{2}$ W.*) from *Amorga Poulo*, distant 22 leagues, is the *S. W. Point of the Island Milo*, bearing from *Cape St. Angelo* E. N. E. $\frac{1}{2}$ E. (*East*) 57 miles; from the *South Point of Cerigotto*, N. E. (*E. N. E. $\frac{1}{2}$ N.*), 24 leagues; and from *Cape Spada*, in *Candia*, N. N. E. $\frac{1}{2}$ E. (*N. E. $\frac{1}{2}$ N.*), 65 miles. The *Island Milo* was once famous for its riches, fertility, and population, the town alone having at least 10,000 inhabitants; but since the plague committed such ravages within it, a century ago, it has gradually dwindled, until the whole island, at the present time, is not able to muster above 2500. This depopulation has been considerably aided by the badness of the water, and the insalubrity of the air, which is said to be strongly impregnated with sulphur. Indeed this and many other islands in the *Archipelago* are of volcanic origin, the evidence of which is sufficiently attested by the warm springs which yet remain. Many fine portions of the country now remain uncultivated, which formerly produced wheat, barley, cotton, grapes, and melons of incomparable excellence; nevertheless, as you advance into the interior, it is better cultivated than its distant appearance would lead you to imagine. The staple produce is cotton, which is exclusively cultivated by the women. It grows a sufficiency of corn to furnish a supply to some of the neighbouring islands, and the island contains nearly thirty windmills.

The town, or capital of the island, stands upon a plain, about 2 miles from the coast, at the bottom of the harbour, towards the S. E., and is now nearly in ruins, the narrow streets being almost choked up with the materials of fallen houses. *Castro*, the second town on the island, stands within the harbour, on the larboard side; it is situated on the summit of a high mountain, shaped like a sugar-loaf; its streets are unpaved, and about 4 feet wide; the houses overhang each other, and are ascended by irregular stone steps. At the foot of the mountain upon which *Castro* is built, are the ruins of the ancient city, which are now being partly excavated, in consequence of the late accidental discovery of an ancient theatre of white marble, in a high state of preservation, hidden underneath the soil.

The *Port of Milo* extends inwards full 2 leagues. In sailing towards *Milo* from the westward, you will see the little *Island of Anti-Milo*, in latitude $36^{\circ} 47' 42''$ N., and longitude $24^{\circ} 14' 33''$ E.: it is high and uninhabited, forming an excellent beacon to guide you to the entrance of the harbour. Having advanced towards it, you will see, on the western side of the entrance, *Cape Vani*, which is a high-peaked hill of craggy rocks; and on the eastern, or *Cape Lakida* side, two rocks, which will appear in a line: both sides of the entrance to *Port Milo* are steep-to, there being 40 fathoms at the distance of a cable's length from the shore. When you get within *Cape Vani*, or the western point, you will see, at the distance of 3 miles, two bluff points, from which the land turns to the southward, and forms a bay. In the eastern part of this bay, at about 2 miles from these two bluff points, is the best anchorage, in 20 fathoms, muddy ground; the two bluff points in one with the summit of *Anti-Milo*, bearing W. N. W. $\frac{1}{2}$ N. (*N. W. $\frac{1}{2}$ W.*), and the fishermen's huts E. $\frac{1}{2}$ S. (*E. S. E. $\frac{1}{2}$ E.*). In the western part of the Bay is a cove, where vessels may careen in safety. You may also anchor opposite to the fishermen's huts, which stand on the eastern shore, where you will have 12 and 10 fathoms water; but you must not stand too far to the southward, for there the ground is rocky. Abreast of the above-mentioned huts you may ride at whatever distance from the shore you chuse, for the bottom is clear and good. You may also lie on the west side, close by the point at the mouth of the haven, with a fast on shore, and an anchor to seaward; but there, with a northerly wind, the sea commonly runs high, and there is a ledge of rocks which may injure your cables. In this port there are neither fortifications nor commerce, but you may safely land in any part of the harbour. The inhabitants are either fishermen or sailors, and bear the character of being the best pilots in the *Archipelago*.

Off the N. E. extremity of the Port, near *Cape Lakida*, lie two rocky islets, already noticed; they are called the *Alkrariez Rocks*, and extend in a direction towards *Anti-Milo*: there is a good passage between them and the Point, which is very frequently adopted in coming from the northward; but no vessel should attempt going between the two rocks, for that channel is dangerous. It is said there is a sandy bay on the south side of *Milo*, where you may obtain shelter from northerly winds, and ride in from 24 to 20 fathoms, close to the land; but such anchorage must never be attempted with southerly or westerly winds.

Mount St. Elias is near the S. E. end of the island, and is the highest in the *Archipelago*, excepting *Mount Athos*, being elevated 2036 feet above the level of the sea: at its foot stands the *Convent of Santa Marina*, and near are two warm salt-springs.

which are both close to the edge of the sea. The summit of *Mount Elias* is in latitude $36^{\circ} 40' 27''$ N., and longitude $24^{\circ} 23' 14''$ E.

S. W. $\frac{1}{2}$ W. (*W. S. W. $\frac{1}{2}$ S.*), distant one mile from *Plasinisi Point*, the S. W. Point of *Milo*, is the little *Islet of Pazimandi*; and in nearly a similar direction, distant $10\frac{1}{2}$ miles, are the *Ananes*, consisting of four rocks, whose heads appear above water, and lie in a line nearly E. and W. There is deep water all about them, and no known danger.

From *Plasinisi Point* the southern coast of *Milo* runs E. $\frac{1}{2}$ N. (*E. $\frac{1}{2}$ S.*), $10\frac{1}{2}$ miles, to *Cape St. Remo*, S. E. by E. (*S. E. $\frac{1}{2}$ S.*) from which, distant one league, are two little barren rocks, called the *Pigeons*. From *St. Remo* the land turns to the northward, towards the *Islands Argentieri, Polino, and St. George*.

ARGENTIERI. This island is of a square form, being about 5 miles in length, and 4 in breadth: it is separated from the *Island Milo* by a channel half a mile wide, and, like that island, is entirely a volcanic production, being without trees, but producing corn, cotton, and some pasturage; and is, equally with *Milo*, deficient in fresh water, the inhabitants depending on the rains, which they preserve in cisterns. It has its name from the silver mines that were reported to belong to this island, but which are now found to be a species of the marcasite. It was formerly called *Cimolus*, and still preserves its ancient title, in a sort of earth with which the whole island is covered, that being named *Cimolian earth*, and is in much request for washing and bleaching of linen. It is inhabited by Greeks, who occupy one town, which is seated on an eminence, and stands on the S. E. side of the island: the roadstead is good, and sheltered by the *Island Polino*, which lies a mile and a quarter off its S. Eastern side, and is uninhabited. *Argentieri* is hilly, and its highest mountain is in latitude $36^{\circ} 49' 20''$ N., and longitude $24^{\circ} 33' 23''$ E. Between *Milo, Argentieri, and Polino* are two smaller islets; the one lies directly between *Polino and Argentieri*, and is called *St. Istad*; the other is situated somewhat to the southward, and named *St. George*: these in some measure shelter the harbour; so also does the *Island of Semene*, for the *Road of Argentieri* lies between that and *Milo*. If intending to anchor there, you should run in between the two islands; in doing which, you will see, on the east end of *Milo*, a *white Church*: anchor abreast of the church in 14, 13, or 12 fathoms, good ground; but be careful of the rocks which lie off the S. W. end of *Argentieri*. The channel between *Argentieri and Milo* has 7, 6, and 5 fathoms water, while round and between the other islands the depth is much greater. The summit of *Polino* is in latitude $36^{\circ} 46' 10''$ N., and longitude $24^{\circ} 38' 57''$ E.

SIPHANTO. N. E. by E. (*E. N. E. $\frac{1}{2}$ E.*), distant 2 leagues from *Cape Lakida*, is the S. W. end of the *Island Siphanto*, whose extent in a N. N. E. and S. S. W. (*N. $\frac{1}{2}$ W. and S. $\frac{1}{2}$ E.*) direction, is 8 miles; and whose medium breadth is about 4 miles, being broader to the southward, and narrower towards the north. The soil, where it is not covered with marble and granite, is of considerable fertility, producing maize and wheat, mulberries, figs, olives, vines, and cotton; there are also some silk and honey. It was formerly celebrated for its mineral contents, and said to contain mines of gold and silver; but these are no longer known, although iron, lead, loadstone, and marble have been traced, and under a better Government might be turned to singular advantage. Their quarries of marble are still worked, and this is of a most beautiful kind.

This island has no harbour, but between it and the *Island Chitryani*, on the southern coast, is a sort of roadstead; to enter which, if you are coming from the westward, you should run close into the south part of the island, when you will open *Chitryani*: steer between them, and anchor in from 15 to 12 fathoms; carry a hawser on shore to *Chitryani*, by which, and an anchor to seaward, you may ride, and be in readiness to proceed to the east or west, as occasion requires. This is called *Port Pharo*: there is an open roadstead also on the western side, called *Port Vathy*, but this is totally unsheltered, and therefore seldom adopted. The summit of the highest hill in *Siphanto* is in latitude $36^{\circ} 58' 4''$ N., and longitude $24^{\circ} 42' 36''$ E.

PAROS, ANTI-PAROS, AND NAXIA. *Paros* is an island lying in a north and south direction, being 11 miles in length, and 6 in breadth. Its surface is mountainous, but where cultivated, extremely fertile: the principal export is cotton; but corn, wine, honey, wax, fruit, and vegetables are among its natural productions; the pasturage is good, and sheep and goats numerous. The population is estimated at 7000, and these are among the poorest in the *Archipelago*. Formerly this island was celebrated for the whiteness of its marble, and so long as its quarries were wrought, *Paros* flourished; but on the decline of the eastern empire, they

became neglected, and have never since been reopened. There are several *harbours* on this island, and its central situation seems to point it out as advantageous for commercial purposes; but it is not so at present, and very little traffic of any kind is carried on in any of its ports.

PORT NAUSSA. On the northern part of the island is *Port Naussa*, certainly one of the best harbours in the *Cyclades*, and large enough to contain a whole fleet in safety. You may run in here, between the east and west *points*, without the least danger. Off the eastern *point* are several little *islets*, called the *Lapins*, above water: round these, or sail near the western *point*, and when in, turn to the westward, and anchor in 7, 6, or 5 fathoms, sheltered from all winds. The *Town of Naussa* is situated at the bottom of the harbour, but surrounded with marshy lands, and therefore unhealthy.

PORT St. MARIE is a small place, and situated under the north-east *point* of the *Island*, being formed by *Point St. Marie* and the small *Island of Creta* to the southward: in it are from 10 to 4 fathoms. About 4 miles S. by W. (*S. S. W. $\frac{1}{2}$ W.*) from *Port St. Marie* is another small inlet, called *Port Marmora*; and 4 miles further on, in the same direction, is *Port Treo*, where the Turkish vessels commonly anchor in their annual visit to the *Archipelago*. Before this anchorage are three islands, *St. John's*, *Pigeon*, and *Treo*, or *Lapin Island*; between which, and also between the *islands* and the *shore of Paros* there are passages with from 4 to 9 fathoms water. The southern entrance is nearly a mile broad; but that between the *Village of Treo* and the *Island St. John* is not half so wide: there are, however, 5 fathoms within it; and the channel between *Treo* and *Pigeon Island*, though narrow, has from 7 to 14 fathoms water; but vessels rarely go between *Pigeon* and *St. John's Island*. You may anchor before the town; but you will be better sheltered when riding nearer to *Treo Island*. It is said there is a *shoal* running out to the N. Westward from *Treo Island*; and there is a rivulet passing through the *Village of Treo*, which furnishes good water.

PARKIA, or PARCHA. On the N. W. side of *Paros* is the *Port of Parkia*, or *Parcha*, at the N. E. end of which is the *town*, built upon the ruins of *Paros*: in the walls of some of the houses you will see fine marble columns, and other exquisite pieces of workmanship, manifesting the remains of the ancient town. Off the entrance of the *Port* are several *rocky islands*, and *rocks* under water; but you may enter to the southward of these, having from 20 to 13 fathoms mid-channel. As you advance within it, there is a *rock* under water, and a *reef* opposite, on the north side. The water shallows as you advance, and before the *town* are 6 fathoms. *Mount St. Elias*, the highest part of the *Island of Paros*, is in latitude $37^{\circ} 2' 46''$ N., and longitude $25^{\circ} 11' 25''$ E.

ANTI-PAROS. This is an *island* lying to the westward of *Paros*, and separated by a *channel* about a mile and a half broad; the passage is encumbered with many *rocks*, and therefore dangerous: the island is about 7 miles in length, and 3 miles in breadth in its widest part. It is represented to be one solid block of fine marble; nevertheless there is a little village upon it, and about 300 inhabitants, by whose industry a little cotton, barley, and wine are produced. This island is celebrated for its extraordinary grotto, which is perforated in the side of a rock, about 2 miles distance from the sea: this grotto is 60 yards long, and 120 yards broad; its sides are covered with the most beautiful crystallized marble, and present, when lighted up, a scene of astonishing splendour. The summit of *Anti-Paros* is in latitude $36^{\circ} 59' 40''$ N., and longitude $25^{\circ} 3' 27''$ E.

To the westward of *Anti-Paros* are two rocky islands, named *Spotico* and *Strongylo*; they are both uninhabited and unimportant: the channels between them are narrow, but without any hidden dangers. The passage between *Anti-Paros* and *Paros*, as before observed, has several *rocky islets* within, but yet is passable in a case of necessity. At its southern end there are two or three *rocky islets*, called *Bandero-nisi*; you may pass on either side of them, but the widest and best channel will be to the westward.

NAXIA, or NAXOS. This is the largest of the *Cyclades*, being from *Cape Katomeri* to *Cape Psilos* 18 miles long; and from *Cape Kontro*, the western point of the island, to the opposite extremity, 14 miles broad. Near its centre is *Mount Dia*, or *Jupiter*, in latitude $37^{\circ} 1' 51''$ N., and longitude $25^{\circ} 31' 4''$ E. *Naxia* is hilly, but by no means unproductive; the plains and vallies yielding fruit, wine, oil, cotton, silk, wheat, and barley, while the higher grounds afford pasturage for cattle: it contains quarries of granite, marble, and serpentine; and on the western

coast is a mine of emery. Oranges and lemons are in great abundance; and a peculiar distillation from the rinds of the latter forms an article of export to Russia. The population is estimated at 20,000.

Near the *N. W. point of the Island* is the *Town of Naxia*, defended by a castle: here was a jetty formerly, the remains of which may easily be detected under the surface of the water, and which still receives small craft. To the northward of the town is the little *Spring and River of Ariadne*; and about a gun-shot from the town is a small island, having a marble tower upon it amid a heap of stately ruins, once the Temple of Bacchus. The channel between *Naxia* and *Paros* is full $3\frac{1}{2}$ miles wide, and has from 40 to 6 fathoms water within it; but there is a *rocky bank* mid-channel, which must be carefully avoided. It lies E. S. E. $\frac{1}{2}$ E. (E. S. E. $\frac{1}{4}$ S.) from *Port Marmora*, and has around it from 8 to 14 fathoms.

To the southward of *Naxia* is a cluster of islands, three of the smaller of which are called the *Guphonisi Islands*: west of these are others, called *Stinos*, and near that a larger island, called *Hiracia*: these are all barren islands, and without any inhabitants. To the southward of *Guphonisi* is *Karos Island*, the summit of which is in latitude $36^{\circ} 53' 29''$ N., and longitude $29^{\circ} 39' 52''$ E. This island stretches in a semicircular direction, and is nearly 5 miles long, but narrow and high, its southern point reaching within 4 miles of the *Isle Amorga*. On the eastern side of *Naxia* are the *Akaries Islets*, lying distant from *Cape Kontro* about one league: further east is the *Island Stenosa*, in latitude $37^{\circ} 7' 0''$ N., and longitude $25^{\circ} 50' 0''$ E. This is a larger island, but uninhabited. N. E. by N. (N. E. $\frac{1}{4}$ E.) from *Stenosa*, distant 8 miles, is *La Boida*, a small but upright rock, with deep water every where about it.

SERPHO. This is a rocky and almost barren island, producing little more than saffron, onions, some pasturage for sheep, with mines of iron and loadstone. The only port is on the S. E. side of the island. To sail into this place you should pass close by the land on the west, where you will see a *Church*; leave this on the larboard side until you come over against the point; thence steer westward, and anchor abreast of another *Church*, which stands in a valley: here you will have from 6 to 3 fathoms water. There is also another good road for vessels bound to the eastward; but those who are bound to the west, should anchor on the east side, for the benefit of more easily putting to sea again. A little rocky islet, called *Boui*, or *Poloni*, lies to the eastward of *Serpho*, and is situated in latitude $37^{\circ} 8' 30''$ N., and longitude $24^{\circ} 34' 0''$ E. It is distant from the S. E. Point of *Serpho* one mile and a quarter.

SERPHO POULO, OR LITTLE SERPHO, lies E. N. E. $\frac{1}{4}$ N. from the northern Point of *Serpho*, distant 2 leagues, in latitude $37^{\circ} 16' 0''$ N., and longitude $24^{\circ} 37' 0''$ E.: it is a little high rock, lifting its head perpendicularly out of the sea, and has neither anchorage nor danger about it. N. W. $\frac{1}{4}$ W. (N. W. $\frac{1}{4}$ N.), distant $4\frac{1}{2}$ miles from *Serpho Poulou*, and nearly midway between it and *Thermia*, is the *Island Pipero*, similar in form and appearance to *Serpho Poulou*, and like that, uninhabited.

THERMIA. This is an irregularly formed island, but less mountainous than most of the adjacent islands. It is generally well cultivated, and produces corn, silk, cotton, wine, honey, wax, and wool; but barley is its principal production, which forms an article of considerable exportation. It has one town, which is situated on the N. E. side, and one village, its population being under 5000, principally Greeks. The town takes the name of *Thermia* from the hot springs which abound there, and is built upon the remains of an ancient city. The harbour is but little frequented, and affords no shelter from the north or east winds. The summit of the highest hill in *Thermia* is in latitude $37^{\circ} 26' 14''$ N., and longitude $24^{\circ} 23' 36''$ E. There is an excellent channel between this island and *Zea*, 5 miles wide, and without any danger whatever. Its southern point, called *Cape Dimitrios*, bears from the *Island Hydra* E. $\frac{1}{4}$ S. (E. S. E. $\frac{1}{4}$ E.), distant 37 miles; and from *Cape Colonna*, S. E. $\frac{1}{4}$ S. (S. S. E. $\frac{1}{4}$ E.), 25 miles.

SYRA. This island is about 7 or 8 miles long, and 4 miles broad; its surface is mountainous, but its soil fertile: like most of the surrounding islands, its climate is mild, the winters scarcely felt, and the summer-heats moderated by the breezes from the sea: hence the trees never lose their verdure; it is well-irrigated, and produces barley, wine, figs, olives, cotton, and wheat. Its population is about 5000. The port is on the eastern side; the entrance to it is three-tenths of a mile wide, and the land forms a bay, of which the greater part is open to the east; but off a projecting point, on the north side, is a little island, with a small chapel upon it; and within both is a

cove, wherein the holding ground is good, and the shelter for small vessels excellent. It is very safe for vessels of light draught; and even one or two frigates might find shelter here, and be able to procure their necessary refreshments. The *Chapel* is situated in latitude $37^{\circ} 26' 30''$ N., longitude $24^{\circ} 55' 0''$ E.; and the summit of the island, according to Captain Gauttier, is in latitude $37^{\circ} 28' 56''$ N., longitude $24^{\circ} 55' 28''$ E. The town, as it appears from the entrance of the port, is situated on a conical hill, in the centre between three others, and reaches half way down the mountain, having three windmills just to the eastward of its base: there is also another mill upon the summit of a hill to the eastward. Towards the shore the soundings become shallower, but midway between the *Chapel*, *Island*, and the shore, are 4 and 3 fathoms water, sandy ground. On the S. E. side of *Syra* is a rocky islet, called *Grandonisi*; 2 miles south of this is another, named *Scarpa*, or *Savate*; and 4 miles further south is a third, called *Nate*. This latter is a large rock, but little above the water's edge, and at night very dangerous: the sea is clear all round it, so that in daytime there will be no danger in going close to it; but at night it must be approached with the greatest caution. *Scarpa* is of a triangular form, steep on the south side, and sloping towards the north, somewhat resembling the appearance of *Portland* in the British Channel, so that English seamen are wont to call it the *Portland Rock*. Notwithstanding, there is deep water round these rocky islets, and apparently no danger to pick a ship up; yet it will always be advisable to avoid them, and to borrow towards *Syra* in passing. Directly south (S. S. W. $\frac{1}{2}$ S.) from *Nate* is *Bol*, or *Boi*, a similar barren rock, lifting its head above the surface of the sea, but much higher and more conspicuous than *Nate*, therefore not so dangerous, but serving as a beacon in the channel between the *Islands Paros* and *Syra*. It is in latitude $37^{\circ} 11' 40''$ N., and longitude $25^{\circ} 5' 0''$ E.

DELOS AND MICONI. Sixteen miles and a half from the S. W. Point of *Syra*, is the S. W. Point of the greater *Delos*, now called *Rhenea Island*; and this is divided by a narrow channel from a smaller island, which is the proper *Delos*: they are named by the Turks the *Sedilis*, and although once so celebrated, they are now little more than two insignificant and uninhabited rocks. The larger islet serves the natives of *Miconi* for pasturage for their sheep; and on the lesser one are the remains of the famous temples of *Apollo* and *Diana*, magnificent even in their ruins. The Strait between these islands constitutes an excellent harbour, the best entrance to which is from the southward, where you will find from 35 to 20 fathoms water. Here vessels belonging to *Miconi* are laid up for the winter season. The centre of *Rhenea* is in latitude $37^{\circ} 25' 0''$ N., and longitude $25^{\circ} 15' 0''$ E.

MICONI. This is a mountainous island of a triangular form, being nearly 9 miles in length from E. to W., and $7\frac{1}{2}$ miles from S. to N. It is divided from the lesser *Delos* by a channel of one mile in breadth, at the south part of which are the two *Islands of Praso*. The Town and Port are situated on the western part of the island; the former contains 6000 inhabitants, mostly seafaring men. Here you will see a large white monastery for Monks, and a convent, or establishment for females, both which are religious institutions, and serve as a retreat for the indigent.

Miconi produces barley, figs, and an excellent species of white beans; also the herb orchilla, 700 cantars of which are exported every third year. But the most distinguished production of the island is its red wine, 500 pipes being made every year. *Miconi* is deficient in fresh water; the only water obtainable is from the rains, which is regularly preserved in cisterns. The commercial customs of *Miconi* are much like those of the inhabitants of *Hydra*; but the natives are not equally industrious or enterprising. The N. W. Mountain of *Miconi* is in latitude $37^{\circ} 29' 16''$ N., and longitude $25^{\circ} 21' 22''$ E.

The Roadstead of *Miconi* lies under the N. W. Point of the Island: here vessels may ride before the town, well sheltered from winds at N. N. E., East and South; but S. W. and westerly winds blow directly in. If coming from the eastward or westward for this port, run along until you open the N. W. Point; then luff up to the southward, and anchor before, or a little to the southward of the town, in from 20 to 15 fathoms, good ground: be sure to shut in the North Point of the Island of *Rhenea* with the Island *Syra*.

About a mile from the east end of *Miconi* is the Island *Dragonisi*, a rugged precipitous rock, safe all round. There are also the two other rocky Islets of *Stapodia*, lying S. E. $\frac{1}{2}$ E. (S. E. $\frac{1}{2}$ S.), distant $4\frac{1}{2}$ miles from *Dragonisi*; these are barren and uninhabited, and should always be approached with caution.

TINOS. This island lies to the northward of *Miconi*, the channel between them being

ull $3\frac{1}{2}$ miles wide. From its southern part it runs N. N. W. $\frac{1}{2}$ N. (*N. W. $\frac{1}{4}$ W.*) full 5 miles, in the direction of the *Island Andros*, from which it is separated by a narrow trait, scarce a mile wide: here lie the two *Calvoeiro Rocks*. There is deep water in his passage, but few vessels pass through it, preferring the wider channels to the north of *Andros*, or the south of *Tinos*. *Tinos* is mountainous and rugged, particularly to the northward, where the coast presents *rocky cliffs* that are nearly perpendicular. The western shores being low, are by far the most fertile: there are two rivers running northerly, and having their sources somewhere about the centre of the island. The population is estimated at 25,000, all Greeks: there are three towns, and 65 villages. The capital, *St. Nicholas*, is on the S. W. side, and has nine churches. This is erected upon the site of the ancient city, and the houses are mostly built of white stone, which gives them a clean and interesting appearance; but upon a nearer inspection, the streets will be found narrow and dirty. Here is a little bay, where foreign vessels resort; and a *lazaretto*, where ships perform quarantine. North winds are more prevalent and violent here than any where else, owing to two immensely high mountains overhanging the town, between which it pours down in such torrents, that you dare not attempt going to the villages above, for fear of being blown down, a circumstance that frequently occurs.

The inhabitants manufacture a great quantity of silk, grown upon the island; and the gloves and stockings of their workmanship are of most excellent quality. The fields are divided by stone partitions, but the soil is very rich. They produce two sorts of wine, the red and the white: the white is a sweet wine, of delicious flavour, and celebrated throughout the Levant; and the red has an agreeable taste and good body. Figs compose an article of productive and large exportation; wheat and barley also are raised in considerable quantities.

"The shores of *Tinos*," says Mr. J. Wilson, R. N., "do not offer one port or haven of safety throughout, being nearly straight; but the road before the *Town of St. Nicholas* is almost equal to a harbour; for though N. E. winds blow strong, with sudden gusts from the mountain, and a swell from the northward, and though the S. W. winds cause a heavy sea, yet they seldom blow home. If bound to this road with a north-easter, or taken with it in your passage to *Smyrna*, or elsewhere, and you are to windward of this island, so as to fetch into the passage between *Tinos* and *Andros*, I recommend going through this passage in preference to sailing to the southward of *Tinos*; for although, in going between *Tinos* and *Miconi*, with a gale from the N. E., you may pass within 100 yards of *Cape St. Nicholas*, it being steep-to, yet the anchorage, lying to the N. W. of the *Cape*, will oblige you to make a tack or two to gain it; and it frequently blows so strong, and with such sudden squalls from the mountain, that it is next to an impossibility to carry sail enough to work in; for which reason I would adopt the other passage."

The passage, called the *Narrow Strait*, being not a mile broad, has, on the *Tinos* side, the *Calvoeiro Rocks*; these are high, and from off them the ground is rocky, and shoals: and on the *Andros* side also are some *rocks* lying about 100 yards off; yet in mid-channel, or at the distance of one-third from either shore, there is no obstruction whatever, and you may always steer through the *Strait* in safety. The current, with N. E. winds, runs with great rapidity; therefore, so soon as you enter the *Strait*, begin to take in your sails, haul close under the *Island Tinos*, which is clear, safe, steep, and bold-to, having deep water until you come near the road; you may therefore get all your sails furled, the better to bring up: anchor with the *Cape St. Nicholas* bearing S. S. W. $\frac{1}{2}$ W. (*S. W.*), and the *Church of St. Nicholas* E. $\frac{1}{2}$ N. (*E. by S.*), in 20 or 18 fathoms, clay; but should you go nearer to the town in less water, your anchor will not hold well, as it falls off suddenly until it comes to the above depth. The bank from the *Cape* stretches to the southward, and one mile out you will find 22 and 23 fathoms, coarse sandy ground. The *Town of St. Nicholas* stands at the head of the road; but the ancient town stood further up the hill, for traces of its walls and buildings are still visible. The land of *Tinos* is cultivated up to the mountain's top, which rises gradually from the sea, and is very high: the inhabitants, to prevent the mould falling down, have terraced all the coast with a sort of breast-work of stones, which, viewed from the sea, has a most romantic appearance. Provisions are cheap and plentiful, and water may be had from a well in the town, and also at another well on the *Point of the Cape*; but wood is a scarce article, and brought from the Continent.

The southern *Point of the Road of St. Nicholas* is in latitude $37^{\circ} 33' 0''$ N., and longitude $25^{\circ} 8' 10''$ E.

GHIOURA. This is a barren and almost uninhabited island, moderately high, and destitute of any harbour; it is situated in a central position between the *Islands of Zea, Thermia, Syra, Tinos, and Andros*: its length from E. to W. is about four miles, and its breadth 2 miles: the summit of its highest hill is in latitude $37^{\circ}36'36''$ N., and longitude $24^{\circ}43'13''$ E. Off its southern point lies a small rocky islet, called *Claronisi*.

Directions for sailing from the Southern Coasts of the Morea, through the Channels of the Cyclades, towards Smyrna, the Dardanelles, &c.

To enter the *Archipelago* from the westward there are three passages: 1st, between *Cerigo* and the *Main*; 2d, between *Cerigo* and *Cerigotto*; 3d, between *Cerigotto* and the *Island of Candia*. Towards the end of summer, and in the autumn, it will be advisable to make for *Cape Matipan*, and, if possible, pass through the first of these channels, between *Cerigo* and the *Main*. The passage has been already described, and by keeping about mid-channel, has no hidden danger. By taking this route, you will have the advantage of being so much to windward, an object of some importance, as northerly and N. Easterly winds are commonly prevalent during those seasons; but if you should make for *Candia*, or have to beat through with a hard easterly wind, the channel between *Cerigotto* and *Candia* will certainly be preferable; because, should the weather be clear, you may work through in the night, it being quite free from danger. The passage from *Cerigotto* to the *Isle of Grabusa* is 16 miles wide, and both shores are steep-to. The channel between *Cerigo* and *Cerigotto* is not altogether so safe, especially in night-time or dark weather; for although there is ample width of sea-room, and very deep water, yet there are some hidden rocks, particularly towards the *Isle of Cerigotto*, which must be especially guarded against; and the passage between *Porri* and *Cerigotto* at that time is dangerous. These dangers have been noticed in page 210 of this Work, and may always be avoided by keeping 5 miles off *Cerigotto*. Having therefore passed through one of these channels, according as the season or circumstances require, and having made *Cape St. Angelo*, from which you will take your departure, a N. E. by N. (N. E. $\frac{1}{4}$ E.) course will carry you to the *Channel of Zea*, or between that island and *Macronisi*: in this route you will pass between the little rocky islands *Caravi* and *Bello Poulo*, leaving the former to the starboard, and the latter to the larboard side: the distance from *Cape St. Angelo* to the *Island of Zea* is 28 leagues. On approaching the *Island of St. George d'Arbora*, called by seamen the *Cardinal's Cap*, its northern part will appear high, steep, and uneven; and as it differs materially from any other land hereabout, it forms a good landmark, pointing out the channel between *Zea* and *Macronisi*. *Zea* is much higher than *Macronisi*, and the passage is 3 leagues wide. Should you, in the night, draw near this channel, you may steer up close to *St. George d'Arbora*, and then shape your course through; for *Macronisi* being low land, you might perchance run upon it before you were aware; but a direct N. E. $\frac{1}{4}$ E. (E. N. E. $\frac{1}{4}$ N.) course from *St. George* will not only lead through between *Zea* and *Macronisi*, but also through the *Strait of Doro*. This *Strait* is situated between the *Island of Andros* and the *Negropont*, and is the common customary channel for vessels bound to *Smyrna*, *Constantinople*, and the western and northern *Coasts of Greece*. In approaching the *Strait of Zea* from the southward and westward, when *Zea* bears N. N. E. (N. E. $\frac{1}{4}$ N.), it will appear small and high; but *Thermia*, being then abreast of you, will appear long, and have a valley near its northern end: you can then, if likely to be more advantageous, proceed through the channel formed between *Thermia* and *Zea*, for this is equally free from danger, and is nearly 5 miles wide: and when the north-east *Point of Thermia* comes South (S. by W. $\frac{1}{4}$ W.), and the *Point Starofli* in *Zea*, W. by S. (W. $\frac{1}{4}$ N.), steer N. N. E. (N. E. $\frac{1}{4}$ N.) for the *Strait of Doro*: this course will carry you clearly through the *Strait*. Then, if bound through the *Strait of Scio*, your course from *Cape Guardia* to *Cape Mastico* will be E. $\frac{1}{4}$ N. (E. $\frac{1}{4}$ S.), 21 leagues; to the *Kaloeri*, or *Monk Rocks*, which are most dangerous, and must always be carefully avoided, E. N. E. (E. $\frac{1}{4}$ S.), 10 leagues; to the north end of *Psara*, N. E. (E. N. E. $\frac{1}{4}$ N.), 16 leagues; and to *Point Sigeri*, in *Mytelin*, N. N. E. $\frac{1}{4}$ E. (N. E.), 30 leagues.

THE *KALOERI ROCKS*, called also the *Monks*, or *Old Men*, were surveyed by Captain Beaufort in 1812, who has placed them in latitude $38^{\circ}9'33''$ N., and longitude $25^{\circ}17'0''$ E., being about 28 miles E. N. E. $\frac{1}{4}$ N. (E. by N.) from the north end of the *Island Andros*, and 32 miles East (E. S. E. $\frac{1}{4}$ E.) from *Cape Doro*, in the *Negropont*. They consist of two detached rocks, three-quarters of a mile apart: the larger one is a barren volcanic mass, about 40 yards high, and free from all hidden

dangers about it; the other is small and low, with a short reef to the southward, running out nearly half a cable's length. Captain Beaufort says, "There certainly may be *sunken rocks* in their neighbourhood, but they were undiscovered by our boats, which were employed in searching for them in every direction, and to a considerable distance."

PSARA, or IPSERA. These islands, *Psara* and *Anti-Psara*, lie at the distance of 4 leagues from *Point St. Nicolas*, in *Scio*; the larger island is rocky, and rises to a great elevation at its centre: the summit of the *Peak of St. Elias* is in latitude $38^{\circ} 35' 34''$ N., longitude $26^{\circ} 36' 0''$ E. It is, generally speaking, a barren island, though it affords a little wine. The only town is at the west part of the island, where there is a good road; and on the south also there is a little port, capable of containing eight or ten small vessels. This island had formerly from 3 to 4000 inhabitants, all Greeks; but most of these have deserted the island, and gone to settle in *Egina*, and other parts, in consequence of the unsettled state of the neighbouring continent. *Anti-Psara* is a mere barren rock, and situated on the west side of *Psara*. The whole cluster occupies an extent of about 2 leagues each way; and at the distance of 10 miles to the westward, they appear like a mass of low brown mountains.

In the roadstead, on the west side of *Psara*, you may lie, sheltered from most winds, under the *Island Anti-Psara*; and sail in or out to the northward or the southward, only by taking care to avoid a rock lying off the north side of the *Island*, which may easily be done by keeping over towards the southern shore. Being in, you may anchor in 4 or 5 fathoms, wherever you think proper.

GULF OF SMYRNA. Vessels sailing from the *Strait of Doro* for the *Gulf of Smyrna*, and not intending to go through the *Strait of Scio*, will shape their course from *Cape Guardia*, the northern *Point of the Island Andros*, N. E. $\frac{1}{2}$ N. (*N. E. $\frac{1}{2}$ E.*), about 19 leagues; and having advanced to the northward of the *Island Psara*, should steer directly East (*E. by S. $\frac{1}{2}$ S.*) for *Cape Karabouroun*; being abreast of which, an E. S. E. (*S. E. $\frac{1}{2}$ E.*) course will take them past the *Island of Sahib*. Continue on until you are midway between *Sahib* and *Fokia*, then steer S. E. by S. (*S. S. E. $\frac{1}{2}$ S.*), so far as *Partridge Island*; and bring the *Peak of Mimas* N. W. by W. (*N. W. $\frac{1}{2}$ N.*). Continue to do so for $5\frac{1}{2}$ miles; when having brought *St. James's Castle* in one with *Smyrna Castle*, proceed in that direction until you get the *Point of Smyrna* on with a remarkable peaked hill in the *Mountain of Syppylas*, when steer on for the anchorage.

There is another route, which in winter, during the prevalence of south and south-easterly winds, is frequently adopted, as taking vessels so much further to windward: this is, particularly at that season, suitable to those going to *Scio*, *Smyrna*, *Sighajik*, *Samos*, *Scalanovo*, &c. In this route the passage is between *Milo* and *Anti-Milo*, *Siphanto* and *Serpho*, *Miconi* and *Tinos*. Vessels proceeding by this passage, will sail from *Cape St. Angelo* E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ N.*), 19 leagues, which will carry them directly between *Cape Vani* and *Anti-Milo*; then steering N. E. $\frac{1}{2}$ N. (*N. E. $\frac{1}{2}$ E.*), 8 leagues, they will pass between *Serpho* and *Serphanto*, and may pursue a N. E. $\frac{1}{2}$ E. (*E. N. E. $\frac{1}{2}$ N.*) course, which will take them between *Tinos* and *Miconi*; but in this passage they will pass between the rocky *Islands of Nate* and *Savate*, the former of which, as described in page 238, must be cautiously steered clear of, as it appears but little above the surface of the water, and is steep to on all sides. *Savate*, or *Scarpa*, the *Portland Rock* of the English seamen, is a large rock of a triangular form, sloping downwards towards the north. Having cleared *Point St. John*, in *Tinos*, a N. E. $\frac{1}{2}$ N. (*N. E. by E.*) course will take you directly to the southern entrance of the *Strait of Scio*.

2 THE SPORADES, or EASTERN ISLANDS OF THE ARCHIPELAGO, WITH THE WESTERN COASTS OF ANATOLIA, FROM THE GULF OF SYMI TO THE GULF OF SMYRNA; INCLUDING THE ISLANDS OF PISCOPI, NISARI, SYMI, COS, CALYMNOS, LERO, LIPSO, PATINO, NICARIA, SAMOS, SCIO, PSARA, &c.; THE GULF OF SMYRNA; SAILING DIRECTIONS, &c.

The *Coast of Anatolia*, from the *Gulf of Symi*, northward, is indented with various large Gulfs or Inlets of the sea, containing many Ports and Harbours, little frequented, and very imperfectly known. We here begin at the *Gulf of Symi*, and proceed northward, taking the islands as they occur in our progress. The *Gulf of Symi* is bounded on the southward by the *Cape Volpo*, a point running out from

the main land S. W. by W. (*W. S. W. $\frac{1}{2}$ W.*); here the *Gulf* is 8 miles wide. At the further end of the *Gulf*, about 12 miles from *Cape Volpo*, is the *Town of Issrina*, standing on the southern bank of the *River Polo*. There are several anchorages within this *Gulf*, but so imperfectly known, that their description will be useless. The northern side of the *Gulf* takes a W. by S. (*W. $\frac{1}{2}$ N.*) direction, forming the *promontory*, at the western end of which is *Cape Crio*. Off the entrance of the *Gulf* lies the *Island of Symi*, or *Sanbiki*, about 5 miles long from E. to W., and 4 miles broad from N. to S., consisting, almost exclusively, of mountains of rock, producing nothing but a little fruit, and this is confined to the gardens of the richer inhabitants; for every necessary of life is imported, and the sea being the only resource or support for the inhabitants, all the men are naturally seamen, most being engaged as fishermen. There are more than fifty trading vessels belonging to the island, and full as many smaller fishing-boats: the former carry on a considerable traffic with *Smyrna*, *Constantinople*, *Salonica*, and other adjacent towns.

The *Scala of Symi* contains a few houses and magazines, and is surrounded with beautiful and rich scenery: the *Port* is of an oval form, bordered with high rocks, which shelter it on every side. Near the top of these, above the *Scala*, is the town, the ascent to which is by a steep and rocky path, one mile long: and here, on the summit of a mountain, stand from 1800 to 2000 houses. The streets are, in general, from 3 to 5 feet wide, unpaved, hilly, rocky, steep, and dirty; but the houses have a neat appearance, being white-washed outside, and commodious enough within: the whole population reside in this town. There are two other *ports* besides this, both of which are fairly sheltered, one being on the north, the other on the east side of the island. That called *Imporion* is to the north-westward of the *Scala*, and divided from it by a projecting rock; it is long, and terminates in a small valley. The town is situated in latitude $36^{\circ} 35' 0''$ N., and longitude $27^{\circ} 48' 0''$ E. On the western side of the *Island Symi* is a cluster of *rocky islets*, and to the southward of it is the *Kiskilles*, a barren rock, having a passage between it and *Symi*, one mile wide.

PISCOPI, OR TILO. W. S. W. (*W. $\frac{1}{2}$ S.*) from the *Island Symi*, distant 19 miles, is the *Island Tilo*, or *Piscopi*, about 8 miles in length, and 5 miles in breadth: there is a town on the north coast, in latitude $36^{\circ} 28' 0''$ N., and longitude $27^{\circ} 22' 0''$ E. This island is said to be rocky, and but thinly peopled. The shores are generally steep, and have some detached rocks about them. Off its N. W. Point is the little *Island Zuccolora*. About 4 miles to the southward of *Tilo* is *Yili Island*, a solitary *rocky islet*, uninhabited; and between this and *Rhodes* are several other islands: the most important of these are *Karki* and *Limonia*, which will be noticed hereafter.

NISARI. N. W. (*N. N. W. $\frac{1}{2}$ W.*) from *Piscopi*, distant 3 miles, is a small nameless island; and, in the same direction from the *Town of Tilo*, but 2 leagues further off, is the *Island Nisari*; it is of a square form, being 3 miles broad, and somewhat more in length. This island is said to produce wheat, cotton, and wine, and to have warm springs upon it. A hill rises up in the centre of the island, which is in latitude $36^{\circ} 35' 30''$ N., and longitude $27^{\circ} 11' 0''$ E. W. S. W. $\frac{1}{2}$ S. (*W. by S. $\frac{1}{2}$ S.*) from *Nisari*, distant $10\frac{1}{2}$ miles, is the *Island Mudona*, with a rock at the S. W. Further on, in nearly the same direction, distant from *Nisari* 16 miles, are the two little *Safrani Isles*; S. S. E. (*S. $\frac{1}{2}$ E.*) of which are *St. John's*, or *Cherni Islands*; and to the southward of *St. John's* is a group of *rocky islets*, called *Skrefi*: these are all above water, and have good passages between them; being visible, they are easily avoided. W. N. W. $\frac{1}{2}$ W. (*W. N. W. $\frac{1}{2}$ N.*) from *Nisari Island* are the *Lamagna Isles*; they are distant $4\frac{1}{2}$ miles. There are also others on the north side of the island, and the *Island Gali*, situated centrally between *Nisari* and *Cos Island*.

CAPE CRIO. This is the extremity of an extensive *promontory*, projecting from the main land of *Anatolia*, and dividing the *Gulf of Symi* from the *Gulf of Boudroun*, or *Cos*, and bearing from the north-west end of *Nisari* E. N. E. $\frac{1}{2}$ N. (*E. N. E. $\frac{1}{2}$ E.*), distant $7\frac{1}{2}$ miles. It is in latitude $36^{\circ} 40' 46''$ N., and longitude $27^{\circ} 21' 6''$ E. When seen at a distance, *Cape Crio* appears like an island, being connected to the main only by a narrow neck of land: on both sides of which, artificial harbours have existed; the northern one is small, and now very shallow, having only 6 feet at its deepest parts; and at the entrance, which is about 26 yards wide, only 3 feet. The S. E. Harbour is both larger and deeper, and formerly was protected from the sea by two magnificent piers, having an entrance 160 yards wide. The western pier is still perfect, and is constructed of vast stones clamped together, extending into 17 fathoms water. The eastern pier has been destroyed by the force of the sea; but it may still be traced from the pier-head, which yet remains above water.

In cases of necessity, a large ship may find complete security in this little harbour; although the confined space in which she would have to bring up, and the inconvenience of quitting it with southerly winds, will not render it a desirable port.

Within *Cape Crio* are the extensive *Ruins of Cnidus*; these are situated on the side of a mountain, rising gradually from the sea to the height of 400 feet: they are called by the native Greeks, *Phrianon*. The *Peninsula of Cape Crio* consists of lofty mountains, sloping steeply upwards from the *Port*; but to the westward, facing the sea, it presents a craggy perpendicular face of rock, from 100 to 300 feet high, and utterly inaccessible.

About $2\frac{1}{2}$ leagues from *Cape Crio*, and on the south shore of the *Peninsula*, is an *islet* called *Palamida*, behind which vessels, on beating up to the northward, frequently anchor.

COS, OR STANCO. This is an *island* of an irregular form, long and narrow: it lies in an E. N. E. and W. S. W. (*E. $\frac{1}{4}$ N. and W. $\frac{1}{4}$ S.*) direction, being 7 leagues long, not 2 broad, and situated at the entrance of the *Gulf of Boudroun*. The town is stationed at a *bay* on the N. E. side of the island, in latitude $36^{\circ} 53' 11''$ N., and longitude $27^{\circ} 16' 37''$ E., being sheltered from westerly winds by very high mountains, but surrounded by very fine meadow-land. The population is estimated at 8 or 9000, who inhabit the town and five neighbouring villages: of these the *Village Germettes* were chiefly Turks; while those of *Pyle*, *Animakia*, *Asphention*, and *Kephalos* are all Greeks. The town contains about 2000 houses, but many of these are in ruins: and at its western extremity is a *Venetian Castle*, which no Frank is permitted to enter.

The *Port* is formed by a parcel of stones laid up in heaps, in order to form a sort of *mole*; this encloses a space about 300 feet long, and 50 feet broad, to the northward of the *fort*: into this boats venture when the wind is not northerly. The streets in the town are narrow, ill-paved, and dirty.

Cos, although badly cultivated, is yet extremely fertile, and consists almost of fine level plains. Considerable quantities of corn are raised and exported. The town is surrounded by extensive and fertile gardens, planted with vines, figs, lemons, and oranges, which also form articles of exportation. The climate is temperate, and not subject to excessive heats in summer; while the winters are rainy, without being cold.

Fevers, sometimes accompanied with agues, are very prevalent during the months of May, June, and July, so that scarcely any resident escapes them: this is supposed to arise from the exhalations of a lagoon, said to have been the site of the ancient port, and which now serves to receive all the filth and impurities of the present town.

According to Captain Beaufort, "the northern extremity of the *Island of Cos* is a low sandy point, on which are several windmills; and a *flat bank*, with 3 fathoms upon it, runs out three-quarters of a mile to the northward. This *bank* is rather steep, and the sand blown off from the shore, is washed about by the currents, and forms overfalls and shifting banks. As a general rule, a large vessel, when passing, should not approach it nearer than in 12 or 13 fathoms water. On the eastern part of the *bank*, ships working into the *Bay of Cos*, should keep the *black minaret* in the town open to the eastern angle of the *Fort*.

"The best anchorage is abreast of the *Fort*, in 10 or 12 fathoms; but the whole of the *bay* is clean sand, and you may chuse a berth at any distance judged convenient. The *Fort* is surrounded, on three of its faces, by water; and on the other, to the south, by a broad dry ditch, over which there is a drawbridge: the walls are from 30 to 40 feet high. On the sea-side are 24 guns, some of which are heavy. The inside, as far as could be observed, was choked up with dwelling-houses; and its general appearance did not give an idea of much strength. The *Town of Cos* is small in extent, and walled round, having two gates. The adjoining country is remarkably fertile, produces excellent wine, and exports a large quantity of green fruit to *Egypt*. No place in the *Archipelago* is more frequented by merchant vessels than this port, and therefore supplies, pilots, and information are procured here with facility."

CALYMNOS. W. N. W. (*N. W. $\frac{1}{4}$ W.*), about 5 miles from the *N. E. Point of Cos*, is a square-formed island, called *Kappari*; it is uninhabited and barren; 4 miles beyond which is *Calymnos*: this is a large island of a triangular shape, occupying a space of 11 miles from S. E. to N. W. (*S. S. E. $\frac{1}{4}$ E. to N. N. W. $\frac{1}{4}$ W.*); its surface is mountainous, and the soil fertile: it is rarely visited, and therefore imperfectly known, but is generally spoken of for the excellence of its honey. The summit of

its highest mountain is situated in latitude $36^{\circ} 59' 30''$ N., and longitude $26^{\circ} 59' 0''$ E. There are some *rocks* off its *S. W. Point*, and a little *island* on its eastern side, having a *creek* or *channel* between it and *Calymnos*.

LERO. A little to the north-westward of *Calymnos* is the *Island Lero*, formerly called *Mendalia*; this is an irregularly formed island, variously indented on all sides, being in length about 2 leagues, and in breadth 4 miles. It is very mountainous and rocky, but produces honey, wax, and various fruits, figs, oranges, and lemons. Its town is on the eastern side, situated on the sides of a hill, on the top of which is a *castle*, now in ruins. Towards the north-east end of the island is *Mount Clidi*, in latitude $37^{\circ} 10' 44''$ N., and longitude $26^{\circ} 51' 17''$ E. The population is estimated at 2 or 3000, mostly Greeks, and their chief employment arises from the sea. There is a *Port* on its northern side, called *Partheni*; this is well sheltered by the *Archangel Islands*, which are small, and uninhabited. Off its south-eastern side is the little *rocky islet*, called *Piadoussa*. W. S. W. (*W. & S.*), 6 leagues distant from *Lero*, and nearly equidistant between that island and *Amorga*, is the *Island Levitha*, with the *Island Zinari* to the westward: there are also some other *rocky islets* between, but these are all uninhabited, and of no real importance to navigation.

To the eastward of *Lero* is the *Gulf of Hassan Kalassi*, which is separated from the *Gulf of Cos*, or *Boudroun*, by the lofty *Promontory of Aydyn*.

THE GULF OF COS, OR BOUDROUN. This place was heretofore almost unknown, until Captain Beaufort visited it in 1812, from whose survey we extract the following particulars.

"On the north side of the *Promontory of Aydyn* there is a small *peninsula*, which contains the *harbour*, called *Pasha Limany*, or *Port Pasha*: it is small, and exposed to northerly winds; but the bottom is tough sand and grass, and the depths from 20 to 6 fathoms. There are no inhabitants, and all the wood has been cut down. About a mile to the northward of the *harbour* is a small detached *rock*, 8 yards in height, with deep water all around it. The boat's crew named this the *Wreck Rock*, from the circumstance of their finding a large vessel there, sunk in 9 fathoms water, with her bowsprit touching the rock. To the southward of this *peninsula* is an extensive valley, thickly peopled, having gardens, vineyards, and every appearance of fertility.

"About 5 miles to the southward of *Pasha Limany* is the *Harbour of Gumishlu*: this is a small but snug *cove*, the depth of water in which is from 13 to 4 fathoms, the ground sand and mud. A large ship would hardly ever run for this place, unless through great distress; but with a little care they would be able to enter, although the passage is narrowed by the remains of the ancient pier. Sailing round the next *point*, about 2 miles further south and west, is *Karabaghla*, an open *port*, which may be known by the little island at its entrance. This place affords but little protection; yet the bottom is sand and mud, and a stream of good water falls into it. In the offing are a multitude of barren *islands* and *rocks*; but with the exception of one *shoal*, situated about 2 cables' length off the *S. W. island*, they may be traversed, in every direction, without any danger whatever. In the vicinity of these *islets* are three or four *rocks*, which produce sponges; but there are from 6 to 9 fathoms over them all. Vessels will find a temporary anchorage, about half a mile from the *S. E. side of Chatal*, which is the largest of the *Karabaghla Islands*, in 17 fathoms water.

"Three cables' length from the *S. W. Point of the Aydyn Promontory* is a cluster of *rocks*, upon which the Turkish Admiral erected a *white beacon*, from which circumstance it is commonly called the *Pasha's Rock*. Vessels may pass outside, a cable's length from this beacon, in 6 fathoms. There is a narrow *channel* inside of the *rock*, through which small vessels may pass in 3 fathoms, keeping *Karabaghla* just open with an intermediate *point*. But in rounding the *sandy point* next to the *Pasha's Rock*, the shore should not be approached within 8 or 9 fathoms, for from that depth it shoals suddenly.

"Four miles from the *Pasha Rock*, to the eastward, is *Chifoot Kalassy*, or the *Jew's Castle*, standing on the main, and making like a sugar-loaf hill, with a ruined *castle* on its summit. Coasting vessels frequently anchor off its eastern side to water, there being an excellent spring near the landing-place, among some ruins. To the N. eastward of this place is *Bitch Bay*, having good anchorage throughout. The adjacent country has a fertile appearance, and is well-irrigated: the population is very considerable, and it is said a good traffic is here carried on in corn, fruits, &c.

"**BOUDROUN.** About $2\frac{1}{2}$ miles to the eastward of *Bitch Bay* is the deep *Bay*

of *Boudroun*, at the northern part of which is the town, which now gives the modern name to the *Gulf*. In entering this *Bay* there are two *sunken rocks*, small, but lying in the middle of the *channel*. When a boat was anchored on the outer one, the remarkable *round hill* upon the *Island of Cos* was twice its diameter open to the left of the extreme point of the western island off *Boudroun Bay*; and a *whitish rocky hummock* was just open to the southward of the tongue, or low *black cliff*. This rock has $2\frac{1}{2}$ fathoms on its highest pinnacle, and 20 fathoms close round it. The inner rock is about a cable and a quarter N. $\frac{1}{2}$ E. (N. by E. $\frac{1}{2}$ E.) from the outer one; it has $2\frac{1}{2}$ fathoms on its shallowest part, and deep water all round it. When you are upon this rock, the foot of the *round hill* on *Cos Island* just touches the S. W. Point of the *Bay*, and the *hummock* is completely shut in to the northward of the *Point*. The smallest deviation from these marks will be sufficient to clear these dangers. It was asserted that there is still another rock nearer to *Orak Island*, but it could not be found. A little to the northward of these rocks are many rocks above water, with foul ground extending from the adjacent point; but no ship can have any occasion to borrow so near to that shore. Having therefore passed the above dangers, vessels may anchor outside the harbour in from 20 to 10 fathoms, good bottom of grass, sand, and mud.

"The harbour itself is small, but well sheltered by an island at the entrance, and by the remains of the piers on either side: the deepest water was on the western side, where the sloop of war lay in 3 fathoms; the bottom throughout was covered with long tough grass, which prevents any success with the seine, although the place abounds with mullet and other fish.

"The *Fortress of Boudroun*, though somewhat out of repair, is of a superior order to the generality of Turkish fortifications: it is well situated upon a projecting rock, which it entirely occupies; the walls are high and solid, with outworks on its western and land sides: it mounts 50 pieces of cannon of different calibres. The town is of considerable consequence, and is the capital of the country. All kinds of refreshment are readily procured.

"It," says Captain Beaufort, "seems generally agreed that *Boudroun* occupies the place of the ancient *Halicarnassus*; and a more inviting or convenient situation could hardly have been selected for the capital of the kingdom of *Caria*. It rises gently from the head of a deep bay, and commands a view of the *Island of Cos*, and the southern shore of the *Ceramic Gulf* so far as *Cape Crio*. The harbour is frequented by Turkish cruisers, and there generally is a frigate or sloop of war upon the stocks. The *Serai*, or Palace, stands on the margin of the harbour, as well as some small mosques. Above the town are the remains of a theatre, which measures 280 feet in diameter; and there are many other ruins in the vicinity well deserving the attention of the antiquary." The *Tower of Boudroun* is in latitude $37^{\circ} 1' 21''$ N., and longitude $27^{\circ} 25' 18''$ E.

Of this place Mr. Turner has given the following description. "Before *Boudroun*, to the S. westward, is a small island, which completes the shelter of this fine Port. The town stands on the sea-shore, in a narrow plain, bounded by very high mountains on every side, excepting the south. These mountains are at intervals composed of naked crags of rock, but generally covered with brushwood and brambles. On a tongue of land, in the middle of the Bay, and off the east end of the town, is the *Fortress*, an old and small castle, but still in tolerable repair. The eastern corner alone is now used as the port. The environs of the town are very beautiful, the plain being laid out in fields of corn and rich gardens; and there is a pleasing mixture of wildness and cultivation.

"The town contains about 2000 Turkish houses, and 110 Greek, all standing on the borders of the sea. The houses are of stone, generally small, but well-built. There is constantly a ship of war building here for the Turkish navy, this being a tribute levied on the Pashas and Governors of *Anatolia*."

GULF OF HASSAN KALASSI. Having already described the south-western part of this Gulf, we have only further to observe, that from the *Wreck Rock* the Gulf runs in E. by N. (E. $\frac{1}{2}$ S.), 7 leagues: here, at the head of the Gulf, is the *Harbour of Hassan Kalassi*, the town standing upon a little neck of land, formerly the site of *Yassus*, the ruins of which are still visible. On the opposite side is the poor Village of *Kousouki*, beautifully situated in a rich valley, separated by verdant mountains from the bay it stands upon, and watered by a small creek that winds around their base.

From hence the northern coast of the Gulf extends W. N. W. $\frac{1}{2}$ W. (W. N. W. $\frac{1}{2}$ N.)

to *Cape Arbora*, a distance of 23 miles; a coast little frequented, and consequently not much known. In it are several rivulets, some villages, and ruins, but no place of commerce. There are two *rocky islets* detached from the land, with deep water round them, but no known danger: the southern one is called *St. Nicolas*. W. S. W. $\frac{1}{2}$ S. (*W. by S.*) from *Cape Arbora*, distant 2 leagues, is the *Island Farmaco*; and N. W. by W. (*N. W. $\frac{1}{2}$ N.*), distant 4 leagues from the same *Cape*, is the *Island Gathronisi*, which is about 4 miles long, and has several *rocky islets* attached to it: it is situated nearly in the centre between *Cape Arbora*, the *Island Lipso*, and the southern *Point of Samos*, being in latitude $37^{\circ} 26' 0''$ N., longitude 27° E., and lying directly South (*S. by W. $\frac{1}{2}$ W.*) from the southern entrance of the *Strait of Samos*.

LIPSO. W. $\frac{1}{2}$ S. from *Cape Arbora* is a group of small islands, called *Lipso* and *Nacri*; they cover an extent of more than 6 miles from N. to S., and nearly the same space from E. to W. The largest is called the *Island of Lipso*, and from it three large rocks extend S. westward nearly 5 miles. It is said that anchorage may be found on their western side, if necessary; but we have no particular account of this roadstead, nor of the islands.

PATINO, OR PATMOS. This island lies to the West (*W. N. W. $\frac{1}{2}$ W.*) from *Lipso*, distant 8 miles, and from *Lero* N. W. by W. (*N. W. $\frac{1}{2}$ N.*), 11 miles; it forms one continued rock, mountainous and barren: the only place which is cultivated, is a little valley on the western side, where the richer inhabitants have a few gardens. Its coast is lofty, and consists of a collection of *Capes*, forming many excellent harbours. The *Port* mostly in use is on the eastern side of the island; this is a deep inlet, sheltered on every side, except one, by high mountains, and that side is protected by a projecting *Cape*. Here is the landing-place, over which are built about 50 houses and shops. On a mountain, adjacent, are the ruins of an old castle. The town is situated upon a high rocky mountain, rising immediately from the sea; it has about 400 houses, which, with those at the landing-place, contain the whole population of the island. The houses are of stone, and well-built; but the streets are narrow, and difficult, being steep and ill-paved. The male inhabitants are mostly seamen, and the chief employment of the women is the making cotton stockings, which they export to *Anatolia*, *Samos*, &c., taking in return their provisions from the former, and their wines, &c. from the latter. Hence both are dear.

In the middle of the town, and near the summit of a lofty mountain, which overtops all other edifices, is the *Monastery of St. John*; and to the northward is a natural grotto, formed in the rock, standing half-way down the road, and descending from the mountain in your way to the landing-place. On the northern part of the island is the small *Port of Meloe*, off which, and between *Patino* and the *Fournis Islands*, are several *rocky islets*, all above water, barren, and without inhabitants.

The *Fournis* are a cluster of islands, reported also to have no inhabitants. The middle island lies almost in a N. and S. (*N. N. E. $\frac{1}{2}$ N.* and *S. S. W. $\frac{1}{2}$ S.*) direction, and is nearly 3 leagues long, but narrow: on its eastern side is the *Island Menas*, and on its western side is a similar island, with some rocks about its northern end. These islands are separated from *Nicaria* by a channel, 7 miles wide, and from the *Island of Samos* $3\frac{1}{2}$ miles.

NICARIA. This is an island lying in a N. E. and S. W. direction, being 7 leagues long, and 4 miles broad. Off its S. W. Point is the little *Island Carabasta*, which bears from *Port Meloe*, in *Patino*, W. by N. (*W. N. W. $\frac{1}{2}$ N.*), distant 29 miles; and from the *East Point of Miconi*, East (*E. S. E. $\frac{1}{2}$ E.*), distant 26 miles. Off its south end is another *rocky islet*, called *Rati*. Near this end of *Nicaria* is a mountain, in latitude $37^{\circ} 31' 9''$ N., and longitude $26^{\circ} 2' 38''$ E. The whole island is crossed by a range of hills covered with oak and pine trees, but otherwise barren, though well-watered. It has no port or harbour, and only about 1500 inhabitants, who have the character of being the poorest, proudest, and most indolent of all the natives of the *Archipelago*. These people attend a few sheep, cultivate some gardens, and export a little fruit to *Sealanuovo* and *Rhodes*: they also prepare charcoal, which is disposed of among the adjacent islands. The wine they manufacture is scarcely sufficient for their own consumption, added to which, it is not of the best kind. *Nicaria* is separated from *Samos*, on the east, by the *Great Bogaz*, or channel, which is 10 miles broad. On the south side of *Nicaria* are the *Villages of Musari and Steli*; and on the north shore is the *Village of Cachoria*.

SAMOS, now called by the Turks *Sousam Adassi*, is 25 miles long from E. to W., and of a triangular shape: it is divided from the main land by a narrow and crooked channel, called the *Little Bogaz*. *Samos*, being so mountainous, becomes visible 20

leagues off; and the summit of *Mount Kerti* retains its snow throughout the year. This mountain stands at the western end of the island, and is in latitude $37^{\circ}43'44''$ N., and longitude $26^{\circ}38'21''$ E. The chief *Ports of Samos* are *Port Vathi*, on the N. east, and *Megala Chora*, or *Colonna*, to the southward.

Port Colonna is sheltered on the north by high mountains; on the east by a projecting cape; on the west by an extensive plain; and on the south, by the ruins of a mole. At the end of this plain is a solitary column, once a part of the Temple of Juno, the ruins of which are scattered about. This gives the present name, *Colonna*, to the plain and to the town, which is situated on a low hill that commands it: this plain, which is at the southern part of the island, is about 4 miles long, and one broad; very little of it is cultivated, and the remainder is a marshy swamp. An ancient Roman City formerly covered the plain; but there are only a few vestiges now to be seen, for the greatest part has been buried by different earthquakes. *Colonna* is now a miserable town, having only a few good houses, but built on the steep slope of a mountain: the streets remain unpaved, narrow, stony, and hardly passable.

PORT VATHI. The inland scenery between *Colonna* and *Port Vathi* is in many parts variegated and beautiful; but *Vathi Town* is built on the sides of the mountain which descends to the *Port*. The town is in reality wretched, with streets from 6 to 8 feet wide, built on a steep descent, badly paved, and slippery at times, from the mountain-streams passing through them: the houses are all stone, and tolerably built; while the *Port* is very handsome, being the segment of a long oval, stretching inland towards the S. E., sheltered by high mountains covered with trees, and in part cultivated. It is protected from every wind but the N. W.; and from the gusts of this wind, vessels will be secured in a great measure behind a projecting rock near the landing-place, which is on the eastern shore. This landing-place is about a stone's throw to the northward of the town; it stands in a valley which is well cultivated, and consists of nearly 150 houses, one of which is that of the English Consul. *Vathi* is the principal town in the island, although the residence of the Turkish Governor is at *Colonna*.

Mr. Galt, who visited this island in 1810, says "that *Samos*, like the other dominions of the Greeks, has greatly declined from its former importance. But though the monuments of its former grandeur are almost obliterated, it is supposed that its riches and population fall little short of what they were in the best times of antiquity. The island is said to contain at present 20,000 inhabited houses, and the whole population is estimated at 50,000. The principal production is the rich Muscato wine, once so much esteemed under the name of Malmsey, of which large quantities during peace were shipped off to the *Black Sea*. The sweet Muscato, unlike every other wine, is best every first year; its fine perfume passes off in the course of the second; and as it grows old, it becomes strong and spirituous. *Samos* also exports a considerable quantity of oil and raisins. The oil is the best in the Levant, and some which was sent to London, sold for good Lucca. In the mountains statuary marble is found in abundance; and not far from the *Town of Vathi*, on the north side of the island, is an extensive forest, which furnishes timber for ship-building. In the recesses of these forests serpents of an incredible size have been found. The carob-tree is also cultivated in this island, and a considerable quantity of the fruit is sent to Russia, where it is distilled, and produces a cheap spirit, used by the common people. It is also esteemed as an excellent food for horses, and is sometimes eaten by the poor people, in want of better food." Mr. Turner, who was at *Samos* in 1818, says, "the population at that time was estimated at 60,000, inhabiting 18 villages, and about 20 smaller ones. In each of the larger ones are, on an average, about 3000. The island was governed by a Turkish Aga; but the real power is in the hands of the *Primates* (*Proestoi*), who are chosen by the inhabitants. These *Primates*," he adds, "detest all Franks, and are particularly hostile to having commerce with the English:" in consequence, any traffic with this island is at present interdicted."

The main land from *Cape Arhora* runs N. by E. (*N. N. E. & E.*) for 15 miles, and then W. N. W. (*N. W. & W.*) to the *Little Bogaz*, or *Strait of Samos*. In the former course the *River Meinder* falls into the sea in latitude $37^{\circ}28'0''$ N. *Cape St. Mary* is the eastern point of the entrance to the *Little Bogaz*, and is distinguished by two hills, commonly called the *Peaks of Mysale*, or *Mount Sampson*. Having rounded *Cape St. Mary*, off which are some rocky islets above water, your course will be E. N. E. & E. (*E. & N.*) until you pass the S. eastern projecting *Point of Samos*, which having done, steer N. N. E. (*N. E. & N.*) for the *Gulf of Scalauovo*.

GULF OF SCALANUOVO. The *Gulf of Scalanuovo* is bounded by the *Island of Samos* on the south, and on the north by the main land of *Anatolia*. *Scalanuovo*, called by the Turks, *Koosh Adassi*, which gives its name to the *Gulf*, is in latitude $37^{\circ} 50' 30''$ N., and longitude $27^{\circ} 15' 0''$ E. The City stands in the centre of the *Port*, being built partly on a plain, and partly on the slope of a high mountain. It contains about 3000 houses, 2000 of which are Turkish. The Turkish town stands upon the plain, and is enclosed with walls, which they call the castle: all Turks live within these walls, the gate being regularly closed at sunset, when Christians are totally excluded. The streets are ill-paved and dirty; but a mountain-stream runs down the Greek quarter, over a bed of rock, and has a pretty effect. The anchorage is an open roadstead.

Opposite the landing-place is a small island, called *Koosh Adassi*, or *Bird Island*, upon which stands a square castle; and this forms the only defence towards the sea, while an old fortress on the land-side constitutes its best protection. In one corner of this fortress is a large statue of a Lion, made of white marble.

Scalanuovo, in 1810, had a population of 20,000: the present town is about 300 years old, but there are considerable vestiges of the old town still visible on the other side of the promontory. The Turks are reported to have been induced to settle here on account of the number of springs, most of which afford excellent water. There is said to be an extensive shoal to the southward of *Koosh Adassi Island*; therefore vessels coming from the southward, and through the *Strait of Samos*, should give this part of the coast a good berth in passing.

EPHESUS. Nearly 2 leagues to the North (*N. N. E. & N.*) of *Scalanuovo* is the entrance to the *River Kuchuk Meinder*, the ancient *Caystrus*, or *River of Ephesus*; this city formerly standing on its southern banks, about 2 miles from the sea. Here, situated in a large plain, extending towards the sea, are scattered the *Ruins of Ephesus*; between which and the shore there is now formed an extensive marsh: stone embankments, which once confined the river, are in many places still visible; but the river has now deposited a sort of bar at its entrance, and its course is further interrupted by fishing weirs. The landmarks at the terminations of the stone embankments are now at a considerable distance from the sea, and the space between them and the beach is a foul, unwholesome fen.

A little way above the site of *Ephesus* is a bridge of seven arches, through which the river winds clearly, and without any impediment whatever: the sides of the mountains are in some places broken into stupendous precipices, and in others scooped into hollows, and decorated with stately trees.

"The City of Ephesus," says a modern writer, "has undergone a more thorough change than imagination can scarcely conceive. Once the seat of enterprise and active commerce, but now deserted, the very sea has shrunk from its solitary shores; and its streets, formerly so populous, and thronged with the devotees of Diana, are now ploughed over by the Ottoman serfs, or browsed upon by the sheep of the illiterate peasant. Once the head of the Apostolic Churches of Asia, it now contains not a single Christian within it. Its mouldering arches and dilapidated walls merely whisper a tale of its ancient glory; while it will require the active scrutiny of the searching traveller to form a certain conjecture as to the actual site of this 'first wonder of the world.' Nothing remains, save the 'eternal hills,' and the mazy *Caystrus*, the stream of which rolls on still changeless and the same."

N. W. by W. (*N. W. & N.*) from *Kuchuk Meinder*, distant 5 miles, is *Ghiaoor-Kioy Bay*: there are soundings all the way, the bottom being sand and mud, and the depth from 4 to 30 fathoms. *Ghiaoor-Kioy* has a small bay, on the eastern side of which are the extensive *Ruins of Colophon* and *Claros*. Vessels anchoring here will find good ground in from 20 to 16 fathoms, at from 3 to 5 cables' length off the land; small craft may lie closer in, with from 10 to 2 fathoms. There is a good road of communication across the land to *Smyrna*: horses may readily be procured at the *Village of Ghiaoor-Kioy*, about 2 miles inland, and the journey can be performed in about 8 hours: the road is good, and runs through a very fertile country.

To the westward of *Ghiaoor-Kioy Bay* the land is high; and on several of the projecting points of land are ruins, while inland you will see some Turkish villages. Here, as you run along shore, in latitude $38^{\circ} 2' 20''$ N., you will see the little *Islet of Pondiko-nisi*, lying about half-a-mile from the entrance to a river, and having a passage between it and the shore, with 16 and 17 fathoms water. N. W. & W. (*N. W. & N.*), distant 3 miles from *Pondiko-nisi*, is a little projecting neck of land, on which there are some ancient ruins, probably of *Lebidus*; the shore between is

rocky, and should not be approached too near. From these ruins a *sandy beach* extends semicircularly to the south-eastward, terminating at the *Point of Hypsili*.

HYP SILI. This is a lofty *Promontory*, jutting out to the southward, upon the summit of which is the village of that name, built among the ruins of some ancient town. S. E. (S. S. E. $\frac{1}{2}$ E.) from the *point* of this *Promontory*, distant three-quarters of a mile, is the little *Island of Hypsili*: vessels may pass between it and the main in 10, 15, and 20 fathoms; but they must beware of a *reef* which stretches off the *northern point* of the island, about a cable's length. There is also a *reef* off its *eastern point*, which must have a wide berth; but the passage on the outside, and to the southward of the island, is free from every danger. To the westward of *Point Hypsili* is the *Island Macris*, lying close to the main, having no channel for shipping between. N. W. by N. (N. by W. $\frac{1}{2}$ W.) from the *Island Macris*, distant one mile, is a point of land covered with ruins, and supposed to be the ancient *Myonnesus*, behind which small vessels may find shelter, near a sandy beach, in from 5 to 2 fathoms. This may be considered the S. E. *Point* of the *Bay of Sighajik*, *Cape Koraka* being its S. W. *Point*.

SIGHAJIK. The *Bay of Sighajik* is at its entrance $12\frac{1}{2}$ miles wide. N. N. W. $\frac{1}{2}$ W. (N. by W. $\frac{1}{2}$ W.) from *Myonnesus*, distant 8 miles, is *Chelik Bournoo*, a rocky point, about $2\frac{1}{2}$ miles to the southward of the *Harbour of Sighajik*. The land from *Myonnesus* to *Chelik Bournoo* is indented with several *sandy coves*, and projects out in many rocky points; so that in passing towards the *Harbour of Sighajik*, you will have occasion to give it the berth of one mile, by which you will pass in from 24 to 45 fathoms, mostly sandy ground.

The *Harbour of Sighajik* does not distinctly appear until you get very near its entrance; but when advancing from the S. eastward, you may observe a *white patch* near the summit of the hill which bounds the western side of the valley; and in rounding *Cape Koraka*, you may know its situation by the same deep valley, about 2 miles to the westward of the *Port*, which makes like an opening in the land. There is an *island*, in front of the harbour, in latitude $38^{\circ} 11' 54''$ N., and longitude $26^{\circ} 44' 53''$ E.

From this island some spits of foul ground run out to the N. westward; to avoid which, you should observe, before your ship comes within a cable's length of the island, to bring the whole of a remarkable *rocky hill* in the country, bearing E. S. E. (S. E. $\frac{1}{2}$ E.), open to the northward of the south side of the harbour. This mark will lead round the point of the reef in 5 and 4 fathoms: between this line of bearing and the northern shore the water is deep, and vessels may work in without any danger. The above hill has some scattered trees upon it, and stands about a mile and a half to the E. $\frac{1}{2}$ S. (E. S. E.) of the town. The *Harbour of Sighajik*, though small, is excellent, the ground good, and the shelter complete. Four frigates may moor there with their own anchors, which should be placed across the harbour, as shewn on the particular Plan on the Chart, for the advantage of casting from the weather shore. The adjacent country is fertile, and you may readily procure beef, poultry, fruits, wood, and water.

Sighajik is very advantageously situated with respect to the *City of Smyrna*, which is only 8 miles distant; and when strong winds are prevalent, or a lee current renders it impracticable to beat up for the *Strait of Scio*, or through the *Doro* or *Tinos passages*, then, by running for the *Gulf of Scalauovo*, you will find the influence of the current much diminished, the wind less violent, the water more smooth, and your vessel able at all times to work into the *Bay of Sighajik*, whence horses can readily be procured, if necessary, for *Smyrna*. Or should the wind prove very powerful, you can run for the *Little Bogaz*, or *Strait of Samos*, and give the *Island Nicaria* a wide berth, to avoid the squalls and calms that extend some miles to the leeward of it. You will also find anchorage in the *Little Bogaz*, on the *Samos* side, where, towards the evening, the wind generally hulls into moderate breezes. Northerly winds continue hereabout all the summer, and sometimes blow with unremitting violence for several weeks. In fine weather vessels will find a convenient anchorage outside of the *Harbour of Sighajik* in from 20 to 15 fathoms, bringing *Sighajik Island* to bear E. N. E. (E. $\frac{1}{2}$ N.); then should S. W. gales come on, you will be under the lee of the harbour. If you should have occasion to pass overland to *Smyrna*, you should apply to the presiding *Aga* for horses; and if dispatches are to be conveyed, it will be proper to ask for a *Janissary* escort.

On the northern shores of the *Bay*, about $4\frac{1}{2}$ miles to the westward of *Sighajik*, are the little *Point* and *Cove of Gerac*, where there are some ruins. The western promon-

tory is high land, and formed by the *Mountain Corycus*, which is 750 yards above the level of the sea. Here are two *white streaks* running up from the coast, one league to the southward of which is the little *Harbour of Fromo Limniona*, into which coasting vessels frequently retreat, for the purpose of repairing their damages. The water in this harbour is deep, and the shores are so bold, that in many places the largest ship's side may touch the rocks; there is a *cove* on its eastern side, where the water was more moderately deep, and where Captain Beaufort saw the crews of some vessels mending their sails upon the shore.

Two miles to the southward of *Fromo Limniona* is *Cape Koraka*, in latitude $38^{\circ} 6' 0''$ N., and longitude $26^{\circ} 34' 20''$ E. On the western side of the *Promontory of Corycus*, distant 4 miles from *Cape Koraka*, is the little *Port of Sykia*, within which, on its eastern side, is a snug *cove*, affording good shelter and easy access: this therefore is much frequented by coasters. You may know it by the *white cliffs* on the larboard side of its entrance. Seven miles to the W. N. W. ($N. W. \frac{1}{4} W.$) of *Sykia* is the *Port of Latzata*, a deep and apparently secure harbour; there are 10 and 20 fathoms within its entrance, but towards its further end it becomes shoal. On its starboard side there are some *white cliffs*, and from the larboard point some rocks run off: go not nearer to them than 9 fathoms. About midway between *Port Sykia* and *Port Latzata* there is a little rocky island, supposed to be the ancient *Halonnesus*; it has some rocks off its southern point, and therefore must be avoided: in passing on its southern side, go not into less than 20 fathoms. W. by S. ($W. \frac{1}{4} N.$), distant 20 miles, is the *Cape Mastico*, the southern point of the *Island of Scio*.

SCIO. The *Island of Scio*, now called *Sakez Adassi*, lies in a north and south direction, being 27 miles in length, 10 miles broad, and separated from the main land by a strait 4 miles wide at its narrowest parts. The principal *Town of Scio* is situated in latitude $38^{\circ} 22' 20''$ N., and longitude $26^{\circ} 5' 0''$ E.: it contains about 5000 houses, built with stone and bricks, many of them in the Genoese style, with pyramidal roofs, having a flight of steps before them. Near it is a large Turkish burial ground. There are ninety churches, chapels, and places of worship, besides a cathedral, which is a respectable edifice, adorned with modern paintings. There were 76 villages, which in 1822 had a population of 100,000; but in that year the Turkish fleet entered the harbour, and a general massacre ensued; most of the Sciotes, men and children, were put to death, and the women sold as slaves.

This island has been famous, from time immemorial, for the superior excellence of its wines. Their crops of corn are but trifling, but their fruits are esteemed the best in all the Levant: the figs are of an incredible size, and their oranges and lemons are exported to a great annual amount. The chief trade consists in their manufactured silks and damasks, to carry on which they import a great quantity of raw silk; and almost all the lower classes of the inhabitants are weavers and embroiderers. The hills are for the most part composed of a red-coloured marble, streaked with white; and round the city are quarries of a reddish freestone. There are but few rivers, and these can only be considered as mountain-torrents, but a great number of fine springs; and water is found every where by digging. There is one natural production which is peculiar to this island, and is in general demand; this is a sort of mastic gum, which is almost exclusively exported to *Constantinople*. The soil is luxuriantly fertile, and the climate healthy and most delightful: when viewed from the strait, the town has a beautiful appearance, being thick with trees, surrounded by villages and gardens, producing in profusion every sort of fruit, and extending for 4 or 5 miles along the coast. The northern part of *Scio* is composed of mountains of moderate height, covered with heaths: here a remarkable peaked mountain rises up, in latitude $38^{\circ} 33' 42''$ N., and longitude $26^{\circ} 0' 55''$ E.

The following Directions are by Mr. J. Wilson, late Master of His Majesty's Ship L' Aigle.

“**STRAIT OF SCIO.** Off the S. W. end of *Scio Island*, called *Cape Mastico*, distant three-quarters of a mile, lies the *Venecia*, a barren rock of a conical form, tolerably high and bold-to, having a good channel between it and *Cape Mastico*, with 20 fathoms mid-channel: both that and the *Cape* are easily known as you come from the westward; for the *Cape* is high and rugged, and from it *Venecia* bears S. $\frac{1}{4}$ E. ($S. S. E. \frac{1}{4} S.$). In passing this rock with light winds, give it a good berth; for the current, which is governed by the winds, sets strong to the northward when they are southerly. From *Venecia* to *Cape Blanc of Anatolia* the course is N. E. $\frac{1}{4}$ E. ($E. N. E. \frac{1}{4} N.$), distance 13 miles.

" *Cape Proseaux*, on the *Island of Scio*, appears a steep *white cliff* to seaward, with a *flat surface*, upon which stand the ruins of an old *watch-tower*, and on the strand in the *Bay* is a small *Greek Church*; the land behind rises suddenly, and is flat: it is well cultivated, stocked with mastic and other trees, and has a number of villages. To the westward of the *Cape* is a large *Bay*, with good riding in 16, 18, and 20 fathoms, sandy bottom: this place is good with N. E. winds.

" From *Cape Proseaux* to *St. Elenne Point* the course is N. N. E. (*N. E. by N. $\frac{1}{2}$ E.*), and the distance almost 6 miles. *Point St. Elenne* has a steep *cliff* to seaward, with a *flat surface*, on which is the ruin of an old *tower*; and in the *Bay* between the two points are two other *towers* on high *hills*: west of this *Point* is good riding with N. E. winds, in 14 and 16 fathoms, sandy bottom. *Cape Blanc of Anatolia* bears from *Point St. Elenne* S. E. by E. (*S. E. $\frac{1}{2}$ S.*), and is distant from it about 4 miles. These two *promontories* form the entrance to the *Strait of Scio*: midway, and directly between, lie the *Marivea* or *Black Islands*, or *Ass* and *Horse Islands*, called also the *Passage Islands*: the smallest and westernmost, or *Ass Island*, bears from *St. Elenne Point* E. S. E. (*S. E. $\frac{1}{2}$ E.*), and is at the distance of a mile and a half; it is almost round, of a moderate height, and about 150 yards over, having 6 and 7 fathoms close to its cliffy side. *St. Elenne Point* is somewhat foul, but about 2 cables' length from it are 8 fathoms water, sandy bottom; and at one-third distance from the *Point* to the *Island* are only 7 fathoms, shingly ground: two-thirds distance towards the *Ass Island* you will deepen to 10, 12, and 15 fathoms, and so on till within 100 yards of the island. The south end of the larger or *Horse Island* bears from the south end of the smaller one E. $\frac{1}{2}$ S. (*E. S. E. $\frac{1}{2}$ E.*), distant six-tenths of a mile: it is from south to north about half a mile long, and 300 yards broad, having no fresh water.

" From the north end of *Horse Island* to the north end of *Ass Island*, the bearing is E. N. E. $\frac{1}{2}$ E. (*E. $\frac{1}{2}$ N.*), and the distance about three-quarters of a mile. Midway, in the direction of the north end, lies a *bank of stones*, over which are 23 and 24 feet water: this will be very dangerous for large vessels to go over, especially in gales of southerly winds, the current here running rapidly, and occasioning a considerable rippling of the water; sometimes you will perceive the sea break over it. On each side of this bank are 8 and 10 fathoms, gravel and sand; and between the southern ends of the islands 10 and 11 fathoms. You may anchor any where about 70 or 80 yards off the south end of the larger island; it is rocky, and this you should avoid, but every other part is bold-to. Off the north end the bottom is a fine white sand, and appears shoal when you have 14 and 15 fathoms. From *Point St. Elenne* to *Cape St. Elenne* the fair-way course is N. by E. $\frac{1}{2}$ E. (*N. E. by N.*); but the *Cape* bears from the *Point* N. $\frac{1}{2}$ E. (*N. by E. $\frac{1}{2}$ E.*), distant nearly a mile and a half, forming a sort of *Bay*, between which it is very shoal, not having more than 3 fathoms in any part of it; a clear, white, sandy bottom.

" *Cape St. Elenne* is a low rugged point, rising gradually to a round hill, upon which is an old *watch-tower*. From this *Cape* a shoal stretches out E. $\frac{1}{2}$ S. (*E. S. E.*) about 900 yards, running along so far as *Point St. Elenne*: the leading mark to avoid this shoal is *Cape Proseaux*, a sail's breadth open of *Point St. Elenne*: steer N. E. by N. (*N. E. $\frac{1}{2}$ E.*), and this will carry you clear in 10 and 11 fathoms, gravel and coarse sand. On this bank are about 3 fathoms water, a white sandy ground visible as you approach it: it is steep-to, and on its N. end is a *flat rock*, with 16 feet water over it.

" In sailing either way, when you bring the mark on in 10 fathoms, you will be in 17 or 18 feet the very next cast of your lead; this depth continues until you are near the rugged point: from this shoal toward the *Islands* your soundings will be regular, and in the mid-channel 10 and 11 fathoms, as before said. When you open the *Bay* westward of the *Cape*, then you have passed the shoal: and if bound to *St. Elenne's Bay*, then haul in N. W. $\frac{1}{2}$ N. (*N. W. by N.*), where you will find good anchoring, with South and S. W. winds, bringing the *Point* to bear S. S. E. (*S. $\frac{1}{2}$ E.*), in 7 or 8 fathoms, clay, or thick black mud. From the fair-way between *Maravea* and *Scio* the course to *Green Island*, the easternmost of the *Spalmadores*, is N. N. E. $\frac{1}{2}$ E. (*N. E. $\frac{1}{2}$ N.*), distant 12 miles. To pass between *Spalmadore*, or the *Bird Islands*, and *Scio*, your course will be N. $\frac{1}{2}$ W. (*N. by E.*), 12 or 13 miles. To the anchorage in *Scio Roads* N. $\frac{1}{2}$ W. (*N. $\frac{1}{2}$ E.*), $2\frac{1}{2}$ or 3 miles. To *Scio Mole* N. W. by N. (*N. by W. $\frac{1}{2}$ W.*) $2\frac{1}{2}$ miles.

" On this latter course, half-way to the *Mole-head*, lies a *bank of stones*, on which are from 7 to 10 fathoms; do not anchor upon this bank, or you will surely damage

your cables. In 15 fathoms the ground is clay, and in 16 or 18 fathoms you may anchor any where to the southward of the *mole*; but the ground does not hold so well here as to the northward, although there are 5 and 6 fathoms less water.

"The *Mole of Scio* is now in a ruinous state, the walls being almost level with the sea, the *lighthouses* excepted. The southern one is octagonal, but so weak as to be in danger of falling every gale of wind; that upon the north *Mole-head* is an old *square fort*, on which are mounted 5 or 6 cannon: the *lantern* is at the south angle; this is lighted every night. To go into the *Mole*, you must pass between the *light-houses*, and within, you will find 11 and 12 feet water; but so much ruins and rubbish are continually thrown in, that in all probability it will in a few years be entirely useless: the craft in general moor their heads to the southward, and their sterns to the *Mole*. On the north side stands an old *fortress*, square, and with round towers, and a *fosse* round it.

"Vessels bound from *Constantinople* to *Alexandria* often touch here for refreshments, which are plentiful and cheap. The best anchorage in *Scio Roads* is to the northward of the *fort*, and abreast of the north range of *windmills*, which are five in number; they stand on a kind of *beach*, and are the third range of *mills* from the *Mole*. Large ships may anchor with the tower on *Cape St. Elenne* bearing South (*S. by W. $\frac{1}{2}$ W.*), the North *Lighthouse* S. W. (*S. W. by W. $\frac{1}{2}$ W.*), and the *Lazaretto* W. S. W. (*W. $\frac{1}{2}$ S.*), in 24 fathoms, hard blue clay, with small stones.

"If bound to this place in a gale of wind from the N. E., you will find the best anchorage off *Aisintia Bay*, with *Cone Head* and *Strovale* in one; they will then just appear outside of the easternmost point of land, between *Homer's Cove* and *Port Fin*: the mill on *Aisintia Cliff* on with the peak of the marble quarry, bearing W. N. W. (*N. W. $\frac{1}{2}$ W.*); then at half-a-mile, or a little more, distance from the point on which the windmill stands, you may let go your anchor in 20 or 21 fathoms, fine blue clay, and when you have veered out a whole cable, your ship will be in 16 or 17 fathoms, the same bottom as before: there is a spit running from *Aisintia Cliff* more than a mile.

"These roadsteads are good in summer, but bad in winter, being open to two winds that often blow here violently, and cause a tremendous sea; should you be apprehensive of them, be careful to weigh anchor, and put out to sea before the gale becomes a storm. From the N. *Lighthouse* to *Chesme* the course is E. S. E. (*S. E. $\frac{1}{4}$ E.*), and the distance $8\frac{1}{2}$ miles; but as *Chesme Shoal* lies in the same course, you must steer a point more easterly or southerly: the distance to the shoal is $6\frac{1}{4}$ miles.

"From *Scio Mole Northern Light-house* to *Green Island* the course is } N. E. $\frac{1}{4}$ N. (*N. E. by E.*), and the distance almost 10 miles.

"Ditto to N. passage round *Bird's Island* N. $\frac{1}{4}$ E. (*N. N. E.*) " $8\frac{1}{4}$ "

"Ditto to N. point of *Homer's Cove* ... N. $\frac{1}{4}$ W. (*N. by E.*) " $3\frac{1}{4}$ "

Between *Scio Mole* and *Homer's Cove* is *Aisintia Bay*. All along the shore is good anchorage in 25 and 27 fathoms, from a quarter to half-a-mile from the shore. There are also two coves for boats: the first is called *Homer's Cove*; here you will find a fountain of excellent water, coming from a spring rising a little way up the country: it stands within a small grove of trees, was built for the use of the Turkish fleets which occasionally rendezvous here, and by them named the *Bashaw's Fountain*. *Aisintia Brooks* are sometimes dry, although the spring which supplies them is never so. Thirty yards above the fountain is a rock near the foot of *Mount Epos*, called *Homer's School*. From hence to *Port Fin* the shores are bold and steep, having 25 and 30 fathoms two cables' length off, the north point of the above Cove excepted, which is rocky.

"PORT FIN, or perhaps *Dolphin*, lies within *St. George's Island*, which is low and rocky, having a chapel on its north end. From *Cape Fin*, the southern point of the *Port*, to *St. George's Island*, the channel is about a quarter of a mile wide. *St. George's Island* lies S. S. W. $\frac{1}{4}$ S. to N. N. E. $\frac{1}{4}$ N. (*S. W. by S. to N. E. by N.*), is 150 yards broad, and two-fifths of a mile long. *Ports Fin* have three separate coves or harbours.

"Having rounded *Cape Fin*, or *Fin Head*, you will enter the southernmost harbour; it is rather shoal for about 30 yards off the *Cape*, but you will have 10 fathoms further out, 20 fathoms mid-channel, and 32 fathoms within 50 yards of the island. This Cove runs in S. S. W. $\frac{1}{4}$ S. (*S. W. by S.*), is about 240 yards wide at its entrance, and 20 fathoms deep: further in are 14 fathoms, soft mud; but this port is only fit for small craft, being so narrow. The middle harbour is fit for ships of any burthen; it is half-a-mile

wide at its entrance, where are 20 and 22 fathoms water, and 16 and 18 where you anchor, towards the middle of the port; the bottom is muddy. This is a safe harbour, and no danger; you are well sheltered from all winds, and have a good outlet to the N. E.: ships taken short with that wind, and bound to *Smyrna*, may here find a safe road. Round this port the country has a most dismal and barren appearance, and on the summit of a *hill* is a little *village*. The third *cove* is called *Great Port Fin*, being the largest; to sail into which, you may pass in at the south end of *St. George's Island*, as before described, and sail between it and the *peninsula* that divides the two *harbours*: here, in mid-channel, you will have 30 and 35 fathoms, and a passage more than three furlongs wide. There lies a little *island* at the W. side, on which is a small flat-roofed *chapel*: off this it is somewhat foul, but only to a very little distance out. *St. George's Island* is bold-to; there is a flat-roofed *chapel* upon that also, and from its N. end a little shoal runs off. In passing to the eastward of this *Island*, and going to the *Great Port*, haul not up too quick, but give the above point a berth; for it runs off shoal 70 or 80 yards; and when you have passed the island, the harbour will open itself, running in W. $\frac{1}{2}$ N. (*W. N. W.*) and W. $\frac{1}{2}$ S. (*W. by N.*): it is three-quarters of a mile wide, and $1\frac{1}{2}$ long.

"In sailing in, be careful of a *reef* that runs off from the first low green point on the S. side, after you have passed the *south head*; it stretches out N. N. E. $\frac{1}{2}$ E. (*N. E.*) 300 yards, and has 5, 6, 7, and 8 feet water upon it; but in the channel abreast of it you will find 24, 28, and 30 fathoms: sail in mid-channel, or nearer to the northern shore, and there is no danger. The customary place of anchoring is within the *second head*, which forms a *cove*; here is a safe road with 18, 20, and 22 fathoms, a red kind of mud at the bottom; and you have the *valley* open, in which is a *village*, consisting only of a few houses: there is also a small *brook* near them. To the northward are two *coves*, with a small green island between them; the western one is shoal and muddy, especially towards the *head*, which is a good place to run a ship aground after she has lost her anchors in *Scio Roads*, or elsewhere, as she may lie here in the greatest safety: the other *cove* is to the eastward of *Green Island*, and is a kind of *basin*, being one cable's length wide at the entrance, and two in diameter; nevertheless, it has 15 fathoms mid-channel; here you may let go your anchor, and moor to the *rock* on shore. This is a good careening place; and in summer, when the island is nearly destitute of water, you will here find plenty from a brook. There is no passage but for boats between *Green Island* and the shore, and only for them, at high water. From the mouth of these *coves* to the *north head* the coast runs easterly for one mile: there is a small *rock* above water near the coast, as you go out; it is bold-to; so is all the coast, having from 26 to 24 fathoms water close to it.

"From *St. George's Island*, to sail through the west channel of the *Spalmadores*, the course is N. by E. (*N. N. E. $\frac{1}{2}$ E.*), and to *Strovale Head* is about 4 miles. Between the *N. head* of *Port Fin* and *Cone-head* the coast lies N. by E. $\frac{1}{2}$ E. (*N. N. E. $\frac{1}{2}$ E.*), forming a *Bay*, at the bottom of which is a small *cove* for boats; off it lies a round *rock* above water, appearing like a *hayrick*.

"The Strait between *Scio* and *Spalmadore* is about one mile wide in the *narrows* of *Cone-head*; and 280 yards off that is a *shoal*, which has not more than from 10 to 14 feet water. At 50 yards off are some *rocks* above water, from which towards the *Bird's Island* the course is E. S. E. $\frac{1}{2}$ S. (*S. E. $\frac{1}{2}$ E.*) more than $1\frac{1}{2}$ mile: on this line you will have 12 fathoms close to the *shoal*, 24 fathoms two-thirds over, and 17 fathoms close to the W. side of the islands; but from the *ledge* towards the *Head* of *Spalmadore*, where the *Black Rock* stands, is a bar, with 10 fathoms close to the shoal, and 15 and 16 all across: here you may anchor, and stay out of the current, which in general runs rapidly.

"*Strovale Rock* lies off the N. E. extremity of *Scio*, is of a conical form, and bold-to on its eastern side: between it and the point is a passage only for boats: this rock bears from the W. point of *Spalmadore* W. N. W. $\frac{1}{2}$ N. (*N. W.*), distance one mile: on this line you will have 24, 25, and 26 fathoms, with a bottom of gravel. The *Bird Islands* are on the western side, bold-to; they are round, flat at the top, with a steep cliff, and bear from the S. W. point of *Spalmadore* W. N. W. $\frac{1}{2}$ N. (*N. W.*), nearly a mile distant. A cable's length S. S. E. $\frac{1}{2}$ E. (*S. by E.*) from the southernmost island lies a *sunken rock*, on which are only 2 feet water; it is nearly 60 yards in circumference, and between it and the island is a passage 5 and $5\frac{1}{2}$ fathoms deep, but much too narrow for a ship to navigate. In a direct line from this rock to the S. W. point of *Spalmadore* lies a *rock* nearly level with the water's edge; its form

is oval, and it is about 130 yards in circumference; between the *island* and the *rock* are 10 and 11 fathoms, and between it and the *Point* are 9 and 10 fathoms, gravel and sand; between the *island* and *Spalmadore* are 14 and 15 fathoms, fine sand and gravel: this is a good road with N. E. winds.

"In sailing along the *Spalmadore* side, be careful to avoid a *sunken rock* lying 70 yards off from the south side of the *sandy Bay*; in this *Bay* are a few *huts* and some *trees*, with a well of good water. Off the N. E. point of the islands are several *rugged rocks* both above and under water; there is no passage but for boats between them. *Cape Spalmadore* is the N. W. point of the island; there are some *rocks* off it both above and under water; one in particular bears from the *Cape* N. N. W. $\frac{1}{2}$ W. (N. by W.), and is at the distance of 200 yards; it lies much in the way as you sail into the *Strait*, and has only 16 feet water upon it. You may anchor to the N. E. of *Cape Spalmadore* with S. W. winds, in from 18 to 20 fathoms, about a quarter of a mile from the shore, and on a coarse sandy bottom. There is no place but this on the north side of the island where you can anchor, being all deep water.

"From *Cape Spalmadore* to *Cape Karabouron*, or *Black-head*, the course is N. E. by E. $\frac{1}{2}$ E. (E. N. E. $\frac{1}{2}$ E.), distance 14 miles. From the S. W. point of *Spalmadore* to *Marble Island* the course is S. E. by E. $\frac{1}{2}$ E. (S. E.), distance three-fifths of a mile, between which it forms a *sandy Bay*. There are three islands, among which is shelter for boats. From *Marble Island* to *Gandroull Island* S. W. point, and *Green Island* S. W. point, the course is E. S. E. (S. E. $\frac{1}{2}$ E.), distance from the former $2\frac{1}{2}$ miles; between these is *Marble-head*; and 200 yards to the S. S. W. $\frac{1}{2}$ W. (S. W.) lies a *bank* with 8 and 9 feet over it. E. N. E. $\frac{1}{2}$ E. (East) of *Marble-head* is a long narrow inlet, fit only for small craft.

"*Port Spalmadore*, the ancient *Ænusæ*, is formed by the *Island* of *Spalmadore*, and those of *Gandroull*, *Topasia*, and *Augusta*; it is separated from the little inlet above mentioned by a narrow *isthmus*, and runs in N. E. $\frac{1}{2}$ E. (E. N. E.); it is nearly half-a-mile wide from *Gandroull* to *West-head*; each side is bold-to, and there are 26 and 28 fathoms at the entrance. The only danger is the S. point of *Bramble Island*, from which a reef runs out about 100 yards: but mid-channel, and abreast of the island, are 16 and 17 fathoms, with a bottom of clay; it is here nearly the same breadth as at the entrance, and it is the same between *Cliff-head* and *Topasia Island*, where you will find 14, 12, and 10 fathoms, clay ground; the shores are bold, and you anchor just within a fine *Bay*, half-a-mile across each way, and 10 and 11 fathoms deep, having good holding ground of soft clay. Here you will have the east passage open; but it is barred with a *bank*, upon which are only 7 and 8 feet water, and consequently no sea can heave in, while only boats and small craft have passage through. Between *Bramble Island* and the west shore the passage is safe, and 13 and 14 fathoms deep; observe to give the islands a berth, as before mentioned. There is good riding behind the island for two or three ships in 11 or 12 fathoms, soft clay; or you may pass round into the proper anchorage, having 11 and 12 fathoms water mid-channel.

"Between *Gandroull* and *Green Island* is another open harbour, where vessels frequently anchor with N. E. winds, as they can pass between *Green* and *Augusta Islands* in three fathoms water; the pilots say there are 12 and 14 fathoms, good ground, here. Off the W. end of *Green Island* is a high rock, between which and the island is no passage; and from this rock to some little distance, the ground is foul. In the *Bay* lies a rock of considerable height, from which to *Augusta* appears to be a continued ledge; ships always lie to the S. eastward of this rock. All along the south side of *Spalmadore Island* the anchorage is good for large vessels; it is a safe place with N. E. winds, and there are from 25 to 36 fathoms, blue clay.

"*Cape Blanc*, on the main of *Anatolia*, is of moderate height, and steep foreland; its cliffs are white, and look like those of the *Bill of Portland* in *England*. To the southward is a large and spacious road, called *Blanc Bay*; which, with the strong N. E. winds and lee currents that set out of the *Strait of Scio*, is the customary place of anchoring; to gain which, you should stand to the eastward until you get hold of the shore, where the water is smooth, and the wind less than in the mouth of the *Strait*; and as you get near the *Strait*, you will have a counter current, which will assist you in getting to the anchorage: there are from 8 to 24 fathoms, black sand, and good holding ground. You need be under no apprehension of being surprised here, as the north wind gradually decreases, and gives an opportunity of working into the *Strait*: off the *Cape* it is shoal and rocky about two cables' length.

"From *Cape Blanc* to the south end of the large *Marivea Island*, called the *Horse*, the course and distance are N. W. $\frac{1}{2}$ N. (N. N. W.), about $1\frac{1}{2}$ mile: 500 yards from the

Cape are 10 fathoms, in mid-channel 16, and close to the *rocky point* of the island 7; the east side of the island is clean and bold, having 7 fathoms within 30 yards of its steep cliffs. *Low White-point* bears from the north end of this island E. $\frac{1}{2}$ S. (E. S. E.), distant 1 mile; across are 10 and 11 fathoms, fine sand: it is off the north end of this island where the sand appears white; for although you are in 13 and 14 fathoms, the bottom may be plainly seen. Between *White-point* and *Red-head* is the great *Bay of Sienne*, which answers the opposite purpose of *Cape Blanc Bay*, with south winds blowing strong; the south shore is all a *white chalk cliff*, and runs in a N. E. by E. direction, $1\frac{1}{2}$ mile. Half-way down this coast is a small *Bay*, which is *shoal*, having not more than 3 fathoms. N. W. $\frac{1}{2}$ W. (N. W. by N.) from the steep *East-head* lies a *ledge of rocks*, three of them being above water; they are distant from the *Head* one-third of a mile, and between them and the *Head* are 16 fathoms water, sandy ground. The best place to anchor in this *Bay* is to bring *Sienne Windmill* to bear East (E. S. E. $\frac{1}{2}$ E.), and *White-point* S. W. (S. W. by W. $\frac{1}{2}$ W.); you will then have 11 and 12 fathoms, good holding ground: but be careful not to be surprised by a N. E. wind. This is a good road for a fleet of ships.

"If you would sail into *Chesme* between *Red-head* and the *ledge*, keep *Cape Mastico* a good sail's breadth open to the southward of *Great Marivea Island*; your course will be N. E. $\frac{1}{2}$ E. (E. N. E.), and you will have 12 and 12 $\frac{1}{2}$ fathoms, sandy ground. The *Red-head*, and all the shore southward, is steep, and has 5 and 6 fathoms within 100 yards of the beach: in the channel from the *Head* to the *ledge*, are 10, 11, and 12 fathoms midway, and 8 fathoms within 100 yards of the rock; the passage is more than half-a-mile wide. This *ledge* lies W. N. W. $\frac{1}{2}$ N. and E. S. E. $\frac{1}{2}$ S. (N. W. and S. E.); it is a quarter of a mile long, and 200 yards broad: on the south-east end is a rock even with the water's edge, and on the north side is another. The mark to pass to the northward of the *ledge* into *Chesme*, is to keep the highest mill over *Chesme* a ship's length open of the *inner point* on the south side; when standing on the *Perch Rock*, the point and this mill are in one, and bear E. S. E. (S. E. $\frac{1}{2}$ E.); the *ledge* runs W. N. W. (N. W. $\frac{1}{2}$ W.) beyond the *Perch* about 400 yards. The mark to sail outside is to keep the eastern end of *Augusta Island* open of *Camille Island*, the course N. $\frac{1}{2}$ E. (N. N. E.); it deepens suddenly on all sides, and is therefore dangerous. If you would anchor in the road, you should get the *ledge* to bear S. S. W. $\frac{1}{2}$ W., or S. S. W. $\frac{1}{2}$ S. (S. W. or S. W. by S.); it will then be in a line with the east passage of the *Marivea Islands*: here are 19 and 20 fathoms, good clay ground: the *ledge* will break off the sea. There is a current setting to windward; but this is a safer road than *Scio* with any wind, and the *Shoals of Camille* will shelter you from winds from the N. E.

"The *Harbour of Chesme* lies between *Red-head* and the steep *North-head*; it runs in E. S. E. $\frac{1}{2}$ E. (S. E. by E.) about a mile; to sail in, you must give the *south point* a good berth, as it is *rocky*; and as soon as the *point* bears W. $\frac{1}{2}$ S. (W. by N.), you may anchor in from 9 to 11 fathoms, clay ground: the *Bay* under the *point* is a good road in 6 or 7 fathoms, mud. You may run up the harbour, and anchor abreast of the *rocky point* on the north side; here you may place your anchor to the southward, on the edge of the mud bank, and moor with a hawser or cable to the rocks. Small vessels generally moor above this in the head of the harbour, which abounds with the wrecks of a Turkish Fleet, destroyed by the Russians in 1770.

"From the north *Head of Chesme* the coast runs northward, and to *Shoal-point* the distance is 2 $\frac{1}{2}$ miles; to *Camille*, or *Beacon Island*, the course is N. $\frac{1}{2}$ W. (N. $\frac{1}{2}$ E.) distance 3 $\frac{1}{2}$ miles. In the first little *Bay* is a *fountain* of good water; in the second is a well about 100 yards from the beach. All this coast is steep and bold, having 25 and 30 fathoms within a quarter of a mile from the shore, until you draw near to *Shoal-point*, off which it is *shoal* to some distance. *Camille*, or *Beacon Island*, is of an oval form, and about 140 yards long, composed of red earth and loose stones, which are continually increasing; there are consequently many *shoals* about it. E. S. E. (S. E. $\frac{1}{2}$ E.) from *Camille Island*, at the distance of half-a-mile, is a *ledge of rocks*, with 3 fathoms over them; they are steep-to, and you must be careful not to anchor on them. Within 100 yards of the S. and W. sides of *Camille Island* are 6 and 7 fathoms; but off the eastern point of the island runs a reef of large stones, on which, at about a cable's length distance, are only 3 and 4 feet: the island bears from *Shoal-point* N. W. by N. (N. N. W. $\frac{1}{2}$ N.), distant 9-10ths of a mile. From *Shoal-point* to the N. end of the said banks is 2 $\frac{1}{2}$ miles N. N. W. (N. by W. $\frac{1}{2}$ N.), and to the south end of the banks is E. N. E. $\frac{1}{2}$ E. (East) about 500 yards. Between the point and the banks is a passage into *Shoal Bay*, which is a small but good harbour, though too narrow and intricate, unless you are well

acquainted with it. Between the banks and *Camille Island* is a good passage, giving the *Point of Camille* a berth of two cables' length; and then hauling out N. W., there are 10 and 12 fathoms in mid-channel, fine sand: this is a tolerable place to anchor with N. E. winds. There are two passages between these banks into the great *Bay of Erythræ*. The south channel bears from *Camille Island* E. S. E. $\frac{1}{2}$ S. (S. E. $\frac{1}{2}$ E.), distant half-a-mile; it is about 300 yards wide, and has 3 fathoms in mid-channel: the north one bears N. E. by N. (N. E. $\frac{1}{2}$ E.), distant half-a-mile, and has also 3 fathoms within it, but it is narrower. The west side of the banks is bold-to, having 7 and 8 fathoms within 100 yards; the east side is flat, and is shoal some distance; abreast of the middle bank is another shoal, on which are 6 feet; all the others are composed of gravel and large stones, some part of each above water: these were once islands. The pilots affirm that there is good anchorage in the *Bay of Erythræ* in many places; but there are several shoals which must make it dangerous to strangers. This place is now called *Ritra*; and to the S. E. are the ruins of the once famous *Town of Erythræ*, while a little to the eastward of *Cape Coryna*, are those of *Cybele*.

"In sailing from *Chesme* to the east, you should go on the outside of *Camille*, and observe to keep the windmill of *Sienne* open of *Camille*; your course is N. by W. (N. $\frac{1}{2}$ E.) until the southern *Horse Island* bears E. N. E. $\frac{1}{2}$ E. (East); you will then be past the banks, and may shape your course N. N. E. $\frac{1}{2}$ E. (about N. E.) for the east end of *Augusta Island*. The channel between the *Horse Island*, *Green Island*, and *Augusta Island* is 3 miles wide; and it is said that two-thirds from the latter, and one-third from *Horse Island*, there is a *sunken rock*, but this is very doubtful: probably it is part of the shoals lying between those already described, and the *Little Horse Island*; for from the south it runs off shoal a long way towards *Camille*, so as to make that passage very narrow. To the eastward of *Horse Island* is a passage into the *Bay of Erythræ*; and between the *Great Horse Island* and *Cape Coryna* is another entrance; but as these are out of the fair-way, we shall not further describe them. In the night, turning to windward, come no nearer the *Horse* or the shoal banks than 14 fathoms, as they are steep-to; and when in that depth, you will be within a quarter of a mile of them. *Green Island* and *Augusta* are both steep-to; you may sail within 100 yards of either, having from 15 to 20 fathoms water, a cable's length from shore, and 30 fathoms a little further off.

"From <i>Augusta Island</i> to <i>Cape Co-</i>	} S. E. by E. (S. E. $\frac{1}{2}$ S.) and the distance 5 miles.
<i>ryna</i> the course is	
"Ditto to the outer <i>Black Rocks</i>	E. N. E. $\frac{1}{2}$ N. (E. N. E. $\frac{1}{2}$ E.) " 34 "
"Ditto to <i>Cape Karabouroun</i>	N. N. E. $\frac{1}{2}$ E. (N. E. $\frac{1}{2}$ N.) " 12 "

"The *Black Rocks* are three principal ones, lying a mile off shore, and in a range from *Black Point* N. N. W. (N. $\frac{1}{2}$ W.); they are flat, and their summits green; from the outer one runs a reef in the same direction about a quarter of a mile; and there are several lesser rocks about them."

EGRY LIMAN. In latitude $38^{\circ} 34' 0''$ N., and about 2 leagues to the southward of *Cape Karabouroun*, is a narrow but compact harbour, called *Egry Liman*, lately discovered and explored by Captain Beaufort. It is shaped like a dock, being nearly a mile in length from N. to S.; the inner half is a shoal of mud, but in the outer part of the harbour there are from 10 to 7 fathoms, mud and sand. The Captain says, "Of this place it is not easy to discover the entrance, unless you are close in with the land, which is very high; but perhaps it may be recognised by the following mark: when a small *Peak* on the highest part of the *Karabouroun* range of mountains, commonly called the *Mountains of Mimas*, bears E. by S. (E. S. E. $\frac{1}{2}$ S.), a patch of grey barren rock, with some cultivated ground in its vicinity, may be observed about one-third up the side of the mountain. This brought under the above *Peak*, will be nearly in one with the extremity of the peninsula that forms the entrance. In this port vessels may lie sheltered from all winds but those from N. by E. to N. W.; the country craft frequently shelter here. N. N. W., distant one mile from the entrance, is a point with a ledge of rocks, on which are only 3 and 4 feet water: they run about 300 yards north and south. These are the *Black Rocks* already mentioned, and to which a wide berth must always be given either in coming for *Egry Liman*, or passing through the *Strait of Scio*. A little north is another small cove for barks, called *Port Tour*.

"In working to windward on this coast," says Mr. Wilson, "be careful not to go too near the shore; it is all a steep cliff, the land behind being very high, and, like all the steep coasts in the *Mediterranean*, obstructs the sea winds; so that the nearer you approach the shore, the less wind you will have. Be careful, therefore, and do not

let your ship drive on shore, for a mile off are 40 fathoms, and you may anchor; you will seldom find, at a league off, more than 50 or 55 fathoms, all sand or gravel.

“CAPE KARABOUROUN, in latitude $38^{\circ} 41' 30''$ N., and longitude $26^{\circ} 21' 0''$ E., may easily be known by its steep *black cliffs*. To the south-westward is a *rock* at a little distance from the land, and on a *hill*, over the *Cape*, are three *windmills*: above these is *Mount Karabouroun*, which may be seen 15 or 16 leagues off. This part of the *Promontory* has three projecting points; the first is a *whitish cliff*, the second *spotted and red*, and the third *black*.

“From *Karabouroun* to *Iron Head*, or *Kanlubouroun*, the course is E. by S. (*E. S. E. $\frac{1}{2}$ S.*), and the distance $2\frac{1}{2}$ miles; between them are two *rocky bays*, both foul a full quarter of a mile off: outside of this the bottom is coarse sand and shingles, falling off quickly from 10 to 17 fathoms; and at half-a-mile from the shore there is no anchorage. *Iron Head* is steep, bluff, black, and bold-to, having 10 fathoms within 10 yards of the cliff. Over this point is seen the remarkable *Peak of Mimas*, or *Karabouroun*, appearing in form of a *sugarloaf*: here the mountains begin, running along parallel to both coasts, and ending about *Cape Coryna*.

“From *Iron Head*, or *Kanlubouroun*, to the west end of *Sahib Island*, the course is E. S. E. $\frac{1}{2}$ S. (*S. E. $\frac{1}{2}$ E.*), distant 2 miles. *Sahib*, called also *Sagleosa*, or *English Island*, bears a near resemblance to the *Bill of Portland*, the S. W. end being a steep *white cliff*, and falling with a gentle slope to the north-eastward, which is bold and steep; the island is about half-a-mile in length: at the western point it is rocky, with only 2 fathoms water nearly half a cable off. To the southward, distant $3\frac{1}{2}$ cables' length from *Sahib Island*, is *Domooz Point*, which has an *old tower* on it, formerly a *lighthouse*, but now disused; and to the westward of the point is *Port Sahib*, formed by the point and island. About 2 cables' length to the eastward of *Domooz Point* is the little *Island Plati*, having a safe though narrow passage between, with 4 fathoms in mid-channel; but the best passage is that between the *Islands Plati* and *Sahib*, which is $2\frac{1}{2}$ cables' length wide, with from 26 to 20 fathoms water, and no danger. The passage between *Sahib Island* and the west shore is not safe, because of shallow water extending nearly 2 cables' length from a low cliffy point, with some dark bushes on it, towards the island, and also of a ledge of sunken rocks lying in a direct line between that point and the western point of the island: this shoal-ledge is about $1\frac{1}{2}$ cable's length over, has from 1 to 3 fathoms on it, and its eastern edge is little more than a cable's length from the island. The *Southern Point of Sahib Island* in one with *Domooz Point* leads on to the N. E. extremity of this ledge.

“To sail in through this passage, bring the S. W. Point of the Island any where between S. by W. and S. by E. $\frac{1}{2}$ E., by compass, and steer towards it; give it a berth in passing of about half a cable's length, in from 4 to 6 fathoms, on a South (*S. by W.*) course, until you are a cable's length beyond it; then chuse your anchorage at discretion, in from 9 to 20 fathoms, good tough ground: or, according to Captain Beaufort, who surveyed this harbour in 1812, keep the *old tower* on *Domooz Point* shut in behind the *Southern Point of Sahib*, until the point above it bears well on to the southward; then, keeping the island aboard, shape a southerly course, and pass the above point in from 4 to 6 fathoms. Continue to steer south until *Plati Island* appears to be nearer to *Domooz Point* than to *Sahib Island*; you will then be to the southward of the reef which surrounds the southern part of *Sahib*, and haul over to the eastward and chuse your anchorage. The passage to the westward of the shoal is not so safe to take, although it is more than a cable's length wide, and has from 6 to 12 fathoms in it. To sail in, pass the above-mentioned low point with the dark bushes on it, at little more than 2 cables' distance, steering toward the windmill on the high land within *Domooz Point*, until the south end of *Sahib Island* bears E. $\frac{1}{2}$ N. (*E. $\frac{1}{2}$ S.*); you will then be within the shoal, and may berth your ship as convenient: or, in entering, steer so that by the time the lofty *Peak of Mimas* appears over the low bushy point, the *Island of Plati* shall be apparently mid-channel between *Sahib* and *Domooz Point*, then steer for the latter and anchor. This place affords good shelter from the S. E. winds, which sometimes blow furiously out of the *Gulf of Smyrna*; and should you be obliged to put in here by these winds, run in through the N. E. passage, that is, between the *Islands Sahib* and *Plati*. The tower on *Domooz Point* has been white-washed; and at a short distance south-westward from it there is a little pier. The harbour is open to the N. E. and N. W. winds, but the latter seldom blow: it is not much frequented, being too much under the mountain, and subject to strong and sudden gusts of wind,

especially when to the S. E., or points more southerly. Water and beef may be obtained here.

"THE GULF OF SMYRNA. From the N. end of *Sahib Island* to the N. end of *Long Island*, the bearing and distance are S. E. $\frac{1}{2}$ E. (S. E. $\frac{1}{4}$ S.), $10\frac{1}{2}$ miles; and to the *Coast of English Point*, S. S. E. $\frac{1}{2}$ E. (S. by E. $\frac{1}{4}$ E.), about $10\frac{1}{2}$ miles.

"There is a passage between *Long Island* and the continent, but not fit for strangers to use; the coast is bold and steep as far as *English Point*, from which a bank stretches so far as *Point Esomene*: from hence to *Long Island low Point* are 6, 7, 8, 9, and 12 fathoms; and off the low point are some *sunken rocks*, over which the sea sometimes breaks. The course from this point to *Shag Island* is S. $\frac{1}{4}$ E. (S. by W.); this latter is a rocky low island, lying two-thirds of a mile from the S. W. end of *Long Island*, and is foul to the S. eastward about 400 yards, having only 11 feet over the ledge: between *Shag Island* and *Long Island* there is no passage, being joined together by a reef of rocks. From *Shag Island* to *White Point* the course is E. S. E. $\frac{1}{2}$ S. (S. E. $\frac{1}{4}$ E.), distant $1\frac{1}{4}$ mile: between is a large Bay, which the pilots call *English Harbour*; in it are from 10 to 12 fathoms, muddy ground. The best anchorage is to the southward; for in a line between *Shag Island* and *White Point*, about two-thirds from the former, and one-third from the latter, is a hard shingly bank, with 8 fathoms upon it, on which are quantities of that species of shell-fish called *Pinna*, so destructive to cables. From *White Point* S. $\frac{1}{2}$ W. (S. S. W. $\frac{1}{4}$ S.), distance one mile, lies the *Middle Bank*, which is almost round, about a quarter of a mile over, and has from 15 to 17 feet upon it: it is a hard sand, mixed with some large stones, and bears from *Houlac Point* N. W. $\frac{1}{2}$ N. (N. N. W. $\frac{1}{4}$ W.), distant half-a-mile, having 9 and 10 fathoms in the channel between; but from the N. E. part of the bank to *White Point* are 13, 15, and 16 fathoms in mid-channel, towards the Point 18, and within a cable's length of the Point 14 fathoms: the bank is steep-to on all sides, having 10 fathoms within a cable's length of the 17 feet. The thwart-marks are *Mount Corynus* over the little flat island off *Point Capaut*, bearing S. W. $\frac{1}{2}$ W. (W. S. W.), and the peaked hill of *Little Fokia* over *White Point*, bearing N. N. E. $\frac{1}{4}$ N. (N. N. E. $\frac{1}{2}$ E.).

"From *White Point* to *Shoal Point*, the south point of *Long Island*, the course is E. by S. (S. E. by E. $\frac{1}{4}$ E.), distant one mile. From *Shoal Point* runs off a reef, on which are only 16 and 18 feet water; it then deepens gradually, and in mid-channel you have 20 and 22 fathoms, the ground clay. The only dangers are this *Shoal Point* and the *Rocks of Dylce Head*: this latter is off the S. E. Point of *Long Island*, from which runs a reef of rocks about 300 yards, on which reef are no more than 2 and 3 feet water, yet they are bold-to. There is good anchorage in all this channel, with a bottom of blue clay.

"The passage to the S. W. of *Partridge Island*, between it and *Houlac Point*, is perfectly safe, the *South Point* of *Partridge Island* excepted, whence a shoal runs out to the southward about the length of a cable: in this channel are 15, 16, and 17 fathoms, blue clay; and here vessels ride to load with corn, oil, &c. from *Vourla*: here also ships put in with the strong north winds, when they cannot get to the N. side of the *Gulf of Smyrna*. Between *Partridge Island* and *St. John's Island* the passage is safe, and has from 17 to 20 fathoms.

"In sailing in, or going out, by night, be careful to observe the two flat black islands which lie off the N. N. E. Point of *St. John's Island*; they are bold-to on the N. side, but between them and *St. John's Island* is a reef. Indeed there are several passages among the islands on this side; but as they are out of the fair-way to *Smyrna*, and not much frequented, little need be said concerning them: suffice it, therefore, to observe, there are seven islands, besides some rocks above water, the most southerly island having once been the site of some ancient city, now called *Claozomene*.

"*Long Island* is about $6\frac{1}{2}$ miles long, and 2 miles broad, mostly uninhabited: its N. end is steep and high, and the island is generally hilly. From the *North Point* of *Long Island* to the *Spit* off *Cape Salines*, the course is E. $\frac{1}{4}$ S. (E. S. E.), distant about $6\frac{1}{2}$ miles: this may properly be called the entrance to the *Gulf*, in sailing into which, you should give the *White Head* of *Long Island* a berth of half a mile; for a quarter of a mile E. N. E. $\frac{1}{4}$ N. (E. by N.) from it lies a rock, on which are 12 and 13 feet, where several ships have struck: it must therefore be carefully avoided. Enter the *Gulf* a mile from the above *White Head*; steer S. S. E. $\frac{1}{2}$ E. or S. E. by S. (S. by E. $\frac{1}{4}$ E. or S. S. E. $\frac{1}{4}$ S.); the peaked Hill of *Vourla* will be a point on your starboard bow; *St. George's Island's* W. end will be open of the S. end of *Fokia*; and the *Mountain of Port Oliver* will be open of *St. George's*

Island: steering on this course 6 miles, you will find 28 and 29 fathoms; blue clay ground: and when the *sugarloaf hill* of *Mount Mimas* comes a ship's length or more to the southward of the remarkable *white patch* or *hill* on the middle of *Long Island*, then steer with those marks on S. E. $\frac{1}{4}$ E. (S. E. $\frac{1}{2}$ S.), $4\frac{1}{2}$ miles; you will thus have 28, 29, and 24 fathoms; clay ground. When abreast of *Longsand Head*, you will see the *Castle of St. James's* standing on a low beach, and the old *Castle of Smyrna* upon a hill above the city: when this *castle* comes over the low flat-roofed *Mosque* without a *Minaret*, round which grow a few date-trees, then alter your bearing to E. $\frac{1}{4}$ N. (E. by S.); your distance on this course will be $3\frac{1}{2}$ miles: steer with these marks in one, or, when the wind is scant, you may just open the northern *bastion* of old *Smyrna* with the south *bastion* of *St. James's Castle*, where you will have 20 fathoms; but in this course you will have 24 and 22 fathoms off the *Longsand Head*, and 20 to the *Point of Hermes*, called *Pelican Point*: this course will carry you one-third of the channel from the latter point, and two-thirds from the opposite side; and when you are abreast of the *New-spit*, you will have 11 and 12 fathoms, clay ground. When you get into 10 fathoms, and are about one mile from *St. James's Castle*, then alter your course to E. by N. $\frac{1}{4}$ N. (East), giving the *Castle-point* a berth of 200 or 250 yards, when you will have 9 and 10 fathoms, blue clay: the leading marks then a-head of you, will be a remarkable *peaked hill* north of *Mount Pagus*, on each side of which is a *gap* or *valley*; the southern one appears the largest: the mountain rises very high behind; but the ridge of the peak northward is nearly the same height, and flat. The high mountains of *Syphylus* are behind, and appear double the height of the peak, falling down suddenly to the southward; and, when in the fair channel, you cannot see the shoulder of the mountain over the peak, but it appears about a sail's breadth to the southward of the peak, the south *gap* then bearing E. by N. $\frac{1}{4}$ N. (East): this course will carry you to *Smyrna*, which will be distant 6 miles. After you pass *St. James's Castle*, which is white, you will have 8, 7, and 6 fathoms on the *bar*, which is half-way between the *Castle-point* and *Sibornu Point*; when abreast of the latter, you will have 9 and 10, then 9 and 8 fathoms, where you anchor. Merchants' ships ride before the *City* in 7 and 8 fathoms, mud or soft clay.

"We now return to the north end of *Long Island*, from which to *White Head* the coast runs with various indentations, nearly S. E. by E. (S. E. $\frac{1}{4}$ S.), distant rather more than 4 miles: over this *Head* appears the *white peaked hill* before mentioned; and E. N. E. $\frac{1}{4}$ N. (E. by N.) lies the *sunken rock*. From this *Head* to *White Cove Head* the course is S. E. $\frac{1}{4}$ E. (S. E. $\frac{1}{2}$ S.), and the distance 2 miles: between them is a *Bay*, where the anchorage is good with the wind at west, in 20 fathoms water. All this side of the island is bold-to, except the above rock. *White Cove* is only fit for boats. One mile further is *Jameson's Cove*, the southern point of which is called *Pearl Point*, and beyond, one-third of a mile, is *Dyke Head*. *Partridge Island* is above one mile long, and one-third broad, having 20 fathoms within a quarter of a mile of the shore; on it are three wells with good fresh water, and in the *Cove*, on the east side, is a *fountain*. It is here very healthy, the inbait, or sea-breeze, blowing directly from the sea.

"*Black Islands*, or *Rocks*, bear from the north point of *Partridge Island* S. E. by S. (S. S. E. $\frac{1}{4}$ S.), and are distant from the S. E. point of the island $1\frac{1}{2}$ mile. *North Head*, the *Black Islands*, and the *peaked hill* of *Vourla* are in a line. In turning in or out at night, do not bring the south end of *Partridge Island* to bear more than N. W. $\frac{1}{4}$ W. (N. W. by N.), or the *Peak of Vourla* more easterly than S. S. E. $\frac{1}{4}$ E. (S. by E.). *Black Islands* bear from the N. Point of *St. John's Island* N. N. E. $\frac{1}{4}$ N. (N. E. by N.), distant a quarter of a mile. From *St. John's Island*, which is flat, to the east point of *Vourla Bay*, the distance is $2\frac{1}{2}$ miles southerly; to the west are the flat middle islands, and two rocks lie off the N. W. end of *Flat Island*. S. W. by S. (S. W. $\frac{1}{4}$ W.) from *St. John's Island*, distant three-quarters of a mile, is *Round Island*, and nearly in the same direction is *Clazomenae*, before mentioned as being the site of some ancient city, the vestiges of whose once excellent port are now scarcely visible.

"From the east point of *Vourla* to the *Castle of St. James's*, the coast lies E. by N. (E. $\frac{1}{4}$ S.), distant nearly $12\frac{1}{2}$ miles; the shore is low, with several *brooks* and *fountains*, the land behind being high, and formed by the mountain *Corax*, on the northern part of which are the two *peaked hills* called the *Brothers*, which serve as a leading mark for the pilots; for in entering the *Gulf*, and distant one mile from *Long Island*, they steer for these hills until they shut in the first of the *Three Sisters* with the north shoulder of *Mount Corax*; in doing which they run within half-a-mile of the south shore. To the northward is a *Khan*, near the water's side; E. N. E. $\frac{1}{4}$ E. (E. $\frac{1}{4}$ N.)

from which, distant $1\frac{1}{2}$ mile, are a *Khan* and *fountain*; one mile W. S. W. $\frac{1}{4}$ W. ($W. \frac{1}{4}$ S.) of this, is a *point*, from which runs a *shoal* about a cable's length from the shore: excepting this, all the coast is steep, having from 4 to 6 fathoms within 100 yards of the beach. In the *hight* to the westward of the flat-roofed *Mosque*, a small *spit* runs off about 200 yards. The *Castle Point* also has a small *spit* stretching to the N. westward about 30 yards; but 50 yards off are 6 and 7 fathoms.

"From *St. James's Point* to *Sibornu* the course is E. by S. ($E. S. E. \frac{1}{4}$ S.), distant 2 miles. *Sibornu* is a low beach point, on which some *fishermen's huts* are erected: half-way between these points is the *Bar*. Two hundred yards from *Sibornu* the channel is *shoal*, and 300 yards to the north-westward it becomes dry in summer; but a quarter of a mile off there are 6 fathoms. To the S. eastward of *Sibornu* is the great *Bay* of that name, in which are 8 and 9 fathoms water; and at the further end of the *Bay* is a brook of good water, with an old bridge over it.

"From *Sibornu* to *Smyrna French Quay* the course is E. $\frac{1}{4}$ N. ($E. \frac{1}{4}$ S.), distance 4 miles; and beyond *Smyrna* is the *Carness*, or *Inner Harbour*, sailing into which, give the low point to the southward a good berth, for off it is a *shoal*: in this *Bay* are 5 and 6 fathoms, soft mud: the *River Meles* discharges its waters here. Sometimes the N. E. winds come down from the mountains in sudden gusts, taking the water up in spouts or whirlpools, which makes it safer to lie at *Smyrna*, for there much of the fury is abated before they reach you: moor at *Smyrna* with your hawse open to the N. E.

"Thus much for the south side of the Gulf. Let us now describe its northern coast, beginning at *Rephia*, or *Rapphina Harbour*, which is formed by *Gross*, or *Great Fokia Island*, and the *Hook of Rephia*. In sailing in, you may pass on either side of *St. George's Island*, between which and *Great Island* the passage is bold, having from 17 to 20 fathoms. In passing the elbow of the *Hook* it is *shoal* for 40 or 50 yards off; but the point of the *Hook* is so bold, that you may haul short round, and have 10 fathoms within 10 yards of the beach; this will be found necessary to be done with a N. W. wind, clewing up your sails at the same time, and anchoring in the middle of the harbour in 11 or 12 fathoms, clay ground: this harbour runs in, from the point of the *Hook*, nearly north; it is round, and about half-a-mile over. To the northward is a passage for boats, on the east side of the small flat island lying in the middle of the channel, where you will have 16 and 18 feet water. The east side of the harbour is *shoal*; moor east and west, so as to get under way from your eastern anchor with N. E. winds. Between *St. George's* and *Middle Island* is a good passage a quarter of a mile broad, having in it 12, 13, 14, and 16 fathoms: between the *Middle Island* and the peninsula is a boat passage, having a little low island in the middle. *St. George's Island* is of an oval form, and somewhat high; *Gross Island* is larger and higher; they are green in spring: these, and *Fokia Head*, which is black, are good marks to know these harbours and this coast by.

"*New Fokia*, or *Follery Harbour*, lies between *St. George's*, *Middle Island*, and *Fokia Head*, which bears from *St. George's Island* S. S. E. $\frac{1}{4}$ E. ($S. by E.$), distant $1\frac{1}{2}$ mile; and in this direction are from 25 to 28 fathoms. From *Middle Island* to the *Castle*, where it is narrowest, the distance is half-a-mile, and from here to the head of the harbour, three-quarters of a mile: it runs in E. N. E. $\frac{1}{4}$ N. ($E. by N.$), and outside of it is a good road for N. E. winds, in 26 and 27 fathoms, clay ground: in the narrows, abreast of the *Castle*, are 19 and 20 fathoms; and in the middle of the harbour are 13 and 14 fathoms. Here you may anchor on a bottom of soft mud. The entrance of the narrows is bold on both sides. On the south shore, just past the *Castle*, is a cove, in the middle of which are 13 fathoms; there you may let go your anchor, and run a hawser to the rocks; you may do so in the second and third coves also, which is the port of the town, lying on the east side thereof: it is encircled with a wall, and mounted with some old guns to seaward; but the *Castle* at the entrance is the chief defence of the port, having a battery of heavy cannon level with the sea, and over that another. Those who frequent this harbour, complain of the softness of the ground, and that it does not hold well in the heavy gales of S. E. winds, which blow out of the Gulf, coming between the high land in a violent manner. Water may be had at the well in the first cove, but provisions are scarce. *Fokia Head* is a peninsula, or black cliff, appearing like an island, and joined to the main by a beach, to the S. E. of which is a kind of Bay, where you may anchor with N. E. winds, in 14 and 16 fathoms, clay ground.

" From the <i>S. Head of Fokia</i> to <i>Fokia Ledge</i> , the course is ...	S. S. E. $\frac{1}{2}$ E. (<i>S. by E. $\frac{1}{4}$ E.</i>) distant $2\frac{1}{2}$ miles.
" Ditto to <i>Castleman Point</i>	S. E. (<i>S. S. E. $\frac{1}{4}$ E.</i>) " 24 "
" Ditto to the N. end of <i>Long</i> <i>Island</i>	S. S. W. (<i>S. W. $\frac{1}{4}$ S.</i>) " 6 "
" Ditto to <i>Fair-way</i> up the <i>Gulf</i> ...	S. S. E. (<i>S. by E. $\frac{1}{4}$ S.</i>) " " "
" Ditto to <i>Cape Salines</i> , or W. end of the <i>Shoals</i>	S. E. by S. (<i>S. S. E. $\frac{1}{4}$ S.</i>) nearly 8 "

" This last is the course through between the *Ledge* and *Castleman Point*, for the course, as mentioned up the *Gulf*, will take you too near the *Ledge*; therefore avoid it by steering S. by E. (*S. $\frac{1}{4}$ W.*) until you have passed it; then steer S. E. $\frac{1}{4}$ E. (*S. E. $\frac{1}{2}$ S.*). Two miles from *Fokia Head* lies *Little Fokia*, which is a small but safe harbour, running in E. N. E. $\frac{1}{4}$ N. (*E. by N.*); at its entrance it is one-third of a mile broad, and one mile long; the north point is steep and bold, but the south point has a reef running off in a line, with the north head stretching out 180 yards: you will have 9 and 10 fathoms in the anchoring place, and at the head of the harbour is a brook of good water. Off this port lies *Fokia Ledge*, about one-third of a mile long; it is bold-to on its northern side, having 14 and 15 fathoms close to the *Dry*, or *Wash Rock*; but from this rock, which is 2 feet above water, it shoals to the S. E.: a quarter of a mile from it are 3 fathoms, and thence it falls into regular soundings. The thwart-marks are a remarkable hill, the top of which appears as if a square tower stood thereon, over the south Point of *Little Fokia*, bearing N. E. $\frac{1}{4}$ N. (*N. E. by E.*), or a rocky island just open of *Point Castleman*, bearing E. S. E. $\frac{1}{4}$ E. (*S. E. by E. $\frac{1}{4}$ E.*), or the *Mountain* west of *Port Oliver*, open of the south head of *Fokia*; either of these will carry you on its S. W. end. Coming from the northward, keep *St. George's Island* open of *Fokia Head*, and you will clear it half-a-mile. Should the wind be scant, keep the *Mountain* west of *Port Oliver* a sail's breadth open of *Fokia Head*, and you will just go clear of it. On its N. E. end is *Wash Rock*, from which to *Castleman Point* the passage is good: this rock bears from the *Point* N. W. by W. (*N. W. $\frac{1}{4}$ N.*), distance one mile. In this channel are 11 and 12 fathoms, with a bottom of clay: you may borrow within 100 yards of the *Point*, as it is perfectly clean.

" From *Castleman Point* to *Point Castmone*, or *Black Point*, the coast runs E. $\frac{1}{4}$ S. (*E. S. E. $\frac{1}{4}$ E.*) about $2\frac{1}{2}$ miles; between them is the rocky *Island* before mentioned; and to the eastward is a small *Bay*, in which a ship might anchor in 4 or 5 fathoms, and be sheltered from sea-winds: indeed, all along this coast the anchoring is good with N. and N. E. winds; and off the *Red Cliffs*, the *Ledge* bearing N. W. $\frac{1}{2}$ N. (*N. N. W. $\frac{1}{4}$ W.*), you will have 20 fathoms, clay ground.

" From *Black Point* to *Cape Salines* the course is S. $\frac{1}{2}$ E. (*S. $\frac{1}{4}$ W.*), about 4 miles; between them is the shoal *Bay of Aggria*, in the middle of which is an island of the same name, having an old square tower upon it: salt is made upon this island. Not more than 4 or 5 feet water are in this shoal *Bay*, but great quantities of fish are caught there. *Cape Salines* bears from the north end of *Long Island* E. $\frac{1}{2}$ S. (*E. S. E. $\frac{1}{4}$ E.*), and is rather more than $6\frac{1}{2}$ miles distant. Be careful, in hazy weather, not to mistake *Cross-head* for *Cape Salines*; for, in coming from the sea, the former appears like an island, having a steep cliff towards the south; while two pieces of land to the northward of it seem like islands. From the steep *Cliff*, *Cape Salines* bears South (*S. by W. $\frac{1}{4}$ W.*) about one-third of a mile: the *Cape* is low, and cannot be seen from the deck in mid-channel. Three-quarters of a mile to the northward of the *Cape* is a large bank of sand, which stretches from the dry point of the island N. W. $\frac{1}{4}$ W. (*N. W. by N.*) about one mile, at the edge of which there are only 4 fathoms water: in turning in or out near this shoal, you will have regular soundings. The mark to know when you are clear of the bank is the before-mentioned hill inland, upon which appears to be a tower, in one with the black cliff to the westward of *Black-head*, bearing N. $\frac{1}{4}$ E. (*N. by E. $\frac{1}{2}$ E.*): you will then be to the N. W. of the spit, and may stand into *Aggria Bay*, which vessels frequently do when the sea-winds blow strong, anchoring in 11 and 12 fathoms, until the land-winds come off from the *Bay*, which in summer generally happens after sun-set.

" From *Cape Salines* to *Monimene Bay* the land is very low, and almost level with the sea, the shore being composed of sand, mud, shells, and sea-weeds. In the mid-channel, between the *White Head* of *Long Island* and *Cape Salines*, Mr. Owen Neale, Master of the ship *London*, said he struck upon a rock, his ship drawing 14 feet water. I searched for this rock in vain; but found that the N. W. bank of *Cape Salines* bore from the *White Head* E. N. E. $\frac{1}{4}$ E. (*E. $\frac{1}{2}$ N.*), distant $3\frac{1}{2}$ miles, on which are but 15

feet water, it being but half-a-mile from the *dry bank of Cape Salines*; that it is a hard sand, and deepens suddenly; for, standing towards the bank, a quarter of a mile off you will have 20 fathoms, muddy ground, the next cast 14 or 15 fathoms, third cast 10 fathoms, fourth cast 6 or 5 fathoms, and before you can heave the lead again, you will be aground.

"From *Cape Salines to Long Mud-spit** the course is S. E. $\frac{1}{2}$ S. (S. S. E. $\frac{1}{4}$ E.), distant $7\frac{1}{2}$ miles: $1\frac{1}{2}$ mile of this bank lies in the same line of bearing, or rather outside of it, from which to *Long Mud-spit* it bends inward, and forms *Comola Bay*. The thwart-mark, to avoid the bank just mentioned, will be to keep the *Mountain of Port Oliver* open of *Folkia Head*, and going, by your lead, no nearer than 15 fathoms, you will then be a quarter of a mile from the *fifteen-feet bank*: vessels frequently anchor under this bank with sea-winds, in 12 and 14 fathoms, to wait the land-winds. *Comola Bay* is shoal; in coming from the sea, your first sounding may be 20 fathoms, your next 15, and your third, 7, 6, or 4, which is the general depth of water over the *Bay*. The thwart-mark for coming on the eastern part of this mud shoal is a *round hill* on the *Plain of Hermes*, on which are *three mills*: when the easternmost, or highest one, comes on with the highest of *Hermes Mountains*, bearing N. N. E. $\frac{1}{4}$ E. (N. E. $\frac{1}{4}$ N.), and the *Peak of Mimas* on with *White-head*, in *Long Island*, bearing nearly N. W. by W. (N. W. $\frac{1}{4}$ N.), you will be just entering the *shoal Bay* to the eastward: this mark will also lead just clear to the southward of the *Long Mud-spit* altogether. The *Mud-spit* bears from the N. end of *Partridge Island* E. $\frac{1}{2}$ S. (E. S. E. $\frac{1}{4}$ E.), distant 7 miles: *Longspit Head* bears from the three fathoms of *Long Mud-spit* S. E. $\frac{1}{4}$ S. (S. S. E. $\frac{1}{2}$ E.), distant $2\frac{1}{2}$ miles. E. N. E. $\frac{1}{2}$ E. (E. $\frac{1}{4}$ N.) is a *dry bank of mud and shells*, which at a distance shews white, but is too low to serve for a mark; you must therefore observe a *clump of trees* on the banks of the *Hermes*: when the northernmost tree comes on with the highest part of the mountains, bearing about N. $\frac{1}{2}$ E. (N. by E. $\frac{1}{4}$ E.), then you will be E. $\frac{1}{4}$ N. (E. by S.) of the *Longspit Head*. From the *Longspit Head* the channel is $2\frac{1}{2}$ miles broad; and there are 20 fathoms water within 400 yards of the *Three Fathoms Spit*; in mid-channel are 24 fathoms, towards the south side 12 fathoms, and 200 yards from the beach 8 and 9 fathoms, all soft clay.

"From the *Longspit to Pelican Point* the course is E. $\frac{1}{4}$ N. (E. by S.), distant $2\frac{1}{2}$ miles: this course will carry you upon the *New-spit*; to avoid which, steer one-third from the *Point*, and two-thirds from the opposite shore. Between the *Longspit Head* and *Pelican Point* is a spacious *Bay*, good with all winds, as you are covered with the bank. *Pelican Point* is steep-to: standing towards it from the westward, at 400 yards' distance, you will find 15 and 14 fathoms, the next cast of the lead 10, the third 7, and before you cast again you will be aground. The *River Hermes* has a *bar*, which in summer affords only room for a man-of-war's boat to pass, but in winter it overflows all its banks; it is fresh water to the bar, but generally too thick and muddy to be used: the plain is flat for 14 miles back, so far as the mountains. The channel here is nearly 2 miles wide: 300 yards from the reeds you will not have more than 2 or 3 feet water; it then falls off suddenly, for when our boat's stern was in 6 feet, her bow was in 18 feet water: 100 yards from it are 7 fathoms, one-fourth over the channel 18 and 19 fathoms, midway 15 and 16 fathoms, tough blue clay; and it shoals regularly, having 6 fathoms within 140 yards of the southern beach.

"*New-spit* bears from the outer part of the shoal off *Pelican Point* E. $\frac{1}{4}$ S. (E. S. E. $\frac{1}{2}$ E.), distant $1\frac{1}{2}$ mile; and from *St. James's Castle Point*, N. W. $\frac{1}{4}$ W. (N. W. $\frac{1}{4}$ N.), distant one mile, on which are only 15 feet water from the *Castle Point*. In the direction of *Pelican Point* are 12 and 14 fathoms, and when within 200 yards of the *spit*, it shoals suddenly to 6 and 7 fathoms. Here the channel is not quite a mile broad; in which direction you will have 6 fathoms within 140 yards of the *spit*, and 9 and 10 fathoms mid-channel, from which it shoals regularly to the beach. The thwart-marks for the *spit* are an old *kiln* on the beach, and a *mosque* at the foot of *Mount Corax* in one, bearing S. W. $\frac{1}{4}$ S. (S. W. $\frac{1}{2}$ W.); or the two houses of *Cardile* in one, bearing E. N. E. (E. $\frac{1}{4}$ N.).

"Between this *spit* and the *Castle Point* is what is called *St. James's Road*. In the narrow off the *Castle* the channel is not above 600 yards wide, reaching from the point of the beach to 3 fathoms on the bank opposite. The space covered with shallow water here is full 4 miles deep, extending from *Pelican Point* on to the great

* We are informed that the above *Spit* runs out much further than shewn on the Charts.

Bay of Monimene: on this large track of shoal water are from 18 to 12 feet for more than a mile; the rest is barely covered, being a soft mud. The marks for turning through here are the *eastern house of Cardile* open a sail's breadth to the southward of the western one: but these houses in summer are not easily distinguished, on account of the trees by which the eastern one is surrounded. Within 100 yards of the *Castle Point* are 7 fathoms, one-fourth over are 10 fathoms, in mid-channel 9 fathoms, and 200 yards from the bank are 8 fathoms, all clay ground. In turning, as soon as you have 7 fathoms, tack, and with a leading wind observe the former remarks of *Mount Pagus*, keeping the back shoulder of *Syphylus* just in sight. It has already been said that the *bar* is about half-way between the *Castle* and *Sibornu*, and one mile from each; the channel is about a mile broad, and all across the soundings are nearly 7, $6\frac{1}{2}$, and 6 fathoms, mud and soft clay: therefore, in going in at night, if you shoal your water to less than 5 fathoms, you may guess which side you are on. The *dry sand*, called by the Greeks the *Isle*, lies from *Sibornu* N. W. $\frac{1}{2}$ W. and N. N. W. (N. W. by N. and N. $\frac{1}{2}$ W.), distant 2 miles; but the *shoal* extends from the *Isle* S. S. E. $\frac{1}{2}$ E. (S. by E.) above half-a-mile towards *Sibornu*; so that the channel is here almost a mile and a half broad. The marks for the end of this *Spit* are the two houses of *Cardile* in one E. N. E. (E. $\frac{1}{2}$ N.), and the *huts* at *Sibornu* on with a *peaked hill* at the bottom of the *Bay*, bearing S. E. $\frac{1}{2}$ S. (S. S. E. $\frac{1}{2}$ E.): in the channel are 7 and 8 fathoms. When these *huts* bear South (S. by W. $\frac{1}{2}$ W.) of you, and you are working to windward, then you may stand into *Monimene Bay*. From the butt end of the *Isle-spit* to the western *white house of Cardile* the course is E. N. E. (E. $\frac{1}{2}$ N.), $3\frac{1}{2}$ miles: this forms the great *Bay of Monimene*, having no more than 3 fathoms a mile off the shore, but in a line with the *hut* and the *west house* are 6, 7, and 8 fathoms; and nearly in the direction just mentioned, one mile off the shore of *Cardile*, is a *bank of hard sand*, called *Cockle Bank*: the thwart-marks for it are *Cardile eastern house* open to the north of the western one, which will then bear one mile East (E. S. E. $\frac{1}{2}$ E.). In turning in and out, always observe to keep the *eastern house* a sail's breadth open to the southward of the western one, and you will avoid all the shoals on the north side, as far as the *New-spit*. There are from 10 to 12 feet on the *Cockle Bank*. One mile E. by S. (S. E. by E. $\frac{1}{2}$ E.) from the *west house of Cardile* is a *low point*, to the eastward of which is a *small house*: from this point a *bank* stretches out a quarter of a mile, on which are 7 and 8 feet water; it then deepens suddenly to 6 fathoms.

"From this bank all the coast of the *Carness* is bold: on its south side is a wharf, where ships, in want of repair, may heave down. The *Carness* is named by the English sailors *Peg's Hole*. Water is hard to be got at *Smyrna*; but at the bottom of *Sibornu Bay* runs a fine brook of good water, and to the eastward of it are two fountains. *Smyrna* is rendered a very unhealthy situation, by reason of the vast ponds of stagnant water in the *Plains of Hermes*; these, heated by the sun in summer, become insufferable: the fine sands also drifting about on the now parched and barren plains, contribute to render it still less endurable: to avoid which, it is recommended to lie, as before directed, off *Partridge Island*, where you will have the inbait directly from the sea."

To the above Directions of Mr. J. Wilson, may be added the following Remarks made by Mr. J. Stewart, R. N.

"The whole of this *Gulf*, from getting abreast of *Long Island* to the *Castle* and *Harbour of Smyrna*, is a continued safe anchorage, provided you give the shoals on the northern side a sufficient berth; but the best anchorage, if you are not going so far as *Smyrna*, or are on a cruise, is under *Long Island*. On the south side of *Partridge Island* is excellent riding with all winds, in from 15 to 17 fathoms, muddy bottom: the shores are all clear of dangers, and you may pass within half a ship's length of a low rock that lies on your larboard side in going in from the eastward. You will seldom, in sailing in, go near this rock; but I mention it in case you work in: the passage is also clear between *Partridge Island* and *Long Island*. To sail up to *Smyrna*, the best rule for a stranger is to coast along the *Long Island* shore, and then steer up towards the *Castle*, keeping well toward the southern land, and so soon as you can see *Smyrna Town*, it ought to be kept open to the southward of the *Castle*: these rules will keep you clear of the great shoal that runs all along the north side of the *Gulf of Smyrna*. You commonly find a different wind inside this *Gulf* from outside of it, even in strong gales. I have been running to look for shelter here with a hard northerly gale, and found it come so strong out from the eastward, that I was obliged to go under the *Spalmadores*. Sometimes even merchant ships cannot fetch the latter in such gales."

THE CITY OF SMYRNA, called by the Turks *İsmir*, is the grand emporium of Levantine commerce, and possesses an extensive population; being situated on a fine and extensive plain, bounded by high mountains, between the foot of which and the sea, the plain exhibits olive, orange, lemon, fig, mulberry, cypress, and other trees, together with rich plantations of vines, &c. The distance from the entrance of the *Gulf* to the *City*, including its circuitous courses, is somewhere about 11 leagues; and the harbour is so enclosed by projecting capes and headlands, that nothing is visible from the town beyond them. The streets, however, are ill-paved, narrow, and dirty; even the bazaars, though covered in, and well stocked with goods, do not make a splendid appearance; yet the shops, individually, are gay, arched over, and wear all the symptoms of active industry. The population is estimated at 100,000; but the plague and earthquakes, to which its situation renders it particularly liable, have much contributed to thin its number. It is, however, still a place of great trade. The exports consist in raw silks, carpets, cotton, goat's hair, raisins, wine, and various drugs; rhubarb, amber, musk, lapis lazuli, and medicinal gums; together with diamonds, pearls, and precious stones. Their imports are chiefly woollens, lead, tin, glass, and manufactured silks. Although the external appearance of the houses is gloomy, those built along the water-side are delightful, having gardens attached, and summer-houses fronting the-sea. At the east end of the city is a large hill, on which stands an old Genoese castle: here are the vestiges of an ancient wall, which appears once to have surrounded the city; but there are few remains of antiquity now visible, the materials of the old town being principally used in the construction of the new one. There still, however, exist the foundations of an ancient theatre and an aqueduct; and on the gateway of the castle is a colossal statue, much mutilated, but of exquisite workmanship. The *River Meles* falls into the further end of the *Gulf*, and is now but 60 or 70 yards broad, with a shallow flow of water, unless where artificially confined. The Turkish burying-ground stands on the slope of a hill facing the west, at a small distance from the town; and near it is another, set apart for the Jews, and encircled by a grove of cypress-trees.

In the wet season it has been known to rain in *Smyrna* for fifty days together, incessantly; and vessels riding in the harbour have often been damaged by thunder-storms. The winds here are very variable; and it frequently happens that while a west wind is blowing three leagues to the westward of the port, an east wind will prevail in the harbour, in which case a calm generally intervenes between.

The position of the British Consul's flag-staff at *Smyrna* is in latitude $38^{\circ} 23' 36''$ N., and longitude $27^{\circ} 6' 45''$ E.

WINDS AND TIDES. The winds, as observed on the coast of *Anatolia*, and in the *Archipelago*, may be confined to three points, namely, South to S. S. E., and N. E. After an N. E. wind, the sky becomes clear for a few hours, when it again darkens over, coming on gradually: and in 12 or 16 hours you will have a gale from S. E. or S. S. E. in the *Gulf of Smyrna*; S. E. in the *Straits of Scio*; and along that coast, S. S. E. and South. It generally comes on in the evening, but sometimes at night; toward the morning it blows violently, and continues often till midnight, when it is succeeded by heavy rains: these last a few hours, and then the wind will suddenly shift to the S. W. with strong and violent gusts, after which it moderates, and becomes showery and squally, veering towards the West until it gets N. W., in which quarter it is seldom known to blow hard; it will therefore stop here, when, with a heavy shower of rain or hail, it turns N. N. E. or N. E.

A few hours before this change takes place, the mountain-tops are enveloped with dark and heavy clouds; though sometimes this does not take place until the above change of the wind is effected. The mountains called *Mimas* are remarkable for this appearance; for, after the wind begins to blow, the clouds collect on their S. W. side, and resemble snow: the like appearance, with the same winds, may be observed over the high lands of *Genoa*, and on the N. E. end of *Teneriffe*, when at both places, as well as at *Scio*, it blows violently.

The *Gulf of Tchanderli*, or *Sanderlak*, is remarkable for these winds: they continue thus variable during the months of November, December, January, and February; in March the weather becomes mild; in May and June the sky is clear and serene, the regular inbait, or sea-breeze, begins to set in, and is succeeded by the land-winds. Towards the latter end of June, and in July, you are subject, occasionally, to the *Sirocco* winds. About the equinox it will rain for a day or two, accompanied with thunder; after which it becomes calm and serene, continuing so throughout October; but in November it again becomes variable, blowing hard gales and tempests.

The *Sirocco*, or S. E. wind, comes from the sandy deserts of *Arabia*, crossing *Syria*, and expanding itself all over the *Mediterranean*: one part sweeps over *Karamania*, *Anatolia*, up the *Archæ*, and through the *Dardanells*; the other along *Egypt* to the N. W., finding its passage up the *Adriatic*, and through the *Faro of Messina*, where it blows violently; thence it extends itself along the coast of *Italy*, when, passing *Corsica*, it becomes more easterly, blowing E. S. E. The southerly stream of this air takes its course along the coast of *Egypt* and *Barbary*, passing between that coast and *Sicily*, blowing strong at S. E. in the *Channel of Malta*; passing between *Sardinia* and *Cape Bon* it becomes more easterly; all along the coast of *Barbary* it blows East, and E. by S. It is called the *Levant Wind* at *Gibraltar*, where at most times it becomes violent.

The tides, or rather currents, are not regular: at full and change it is high water on the beach in the *Strait of Scio* at two o'clock; at *Port Oliver*, in *Mytelin*, a quarter after two; at *Macronisi*, or *Long Island*, three o'clock; at *Smyrna*, half after three, and sometimes four o'clock: this is owing to the sea-breeze, which at times impels the current, and increases its height. At *Smyrna* it rises 3 or 3½ feet, but at *Scio* and places adjacent, only 2 feet, with spring-tides. In the *Strait of Scio*, between *Cape St. Elenne* and *Cape Blanc*, and at the *Marivea Islands*, with N. or N. E. winds no common ship can work in, but must anchor in some of the *Bays* already described, until the weather moderates, when it returns with a south wind stronger than it before ran out. There is a considerable current sets out of the *Dardanells* with E. and N. E. winds, making it impossible to pass that *Strait* without a leading wind: this current runs along the coast of *Romania*, passing on each side of *Lemnos*, and between *Cape Doro* and *Andros*: in the passage between *Tinos* and *Miconi* it is not quite so rapid, but between *Tinos* and *Andros* it is equally strong. That part of the stream which courses along the shores of *Anatolia*, passes by the *Island of Tenedos*, rounding *Cape Baba*, and between the coast and *Mytelin*, runs faint, so that you can work through it; but to the westward of *Mytelin* it is stronger, and meeting that stream to the northward of the *Spalmadores*, it runs rapidly through the north channel, while in the south channel it is scarcely perceptible: near the *Marivea Islands* its course is rapid; after which it slackens, passing through between *Samos* and *Nicaria*, and along the coast. But ships, if unacquainted, meeting N. E. winds, should, after passing *Cerigo*, stand to the southward, and work up the south channel between the islands and the *Coast of Anatolia*, through the *Straits of Samos* or *Nicaria*; where they will have less current, less wind, and smoother water, and, by keeping under the high land of *Anatolia*, have the advantage of a counter-current towards *Cape Blanc*, where they can anchor, and wait for moderate weather, as before directed.

SECTION XV.

THE ANATOLIAN COAST, FROM THE GULF OF SMYRNA THROUGH
THE DARDANELLS TO CONSTANTINOPLE AND THE BLACK SEA;
INCLUDING THE ISLANDS OF MYTELIN AND TENEDOS,
AND THE SEA OF MARMARA.

Variation One Point West.

Having quitted the *Gulf of Smyrna*, and being bound to *Constantinople*, your course will be northerly; either taking the route between the *Island of Mytelin* and the *main*, or going round to the westward of that island. In the former case, you will perceive a wide opening to the eastward, called the *Gulf of Tchanderli*, commonly pronounced *Sanderli*: on its southern side is the *Island of St. George*, and opposite is the *Island Arguinoussi*; these two islands bear from each other N. ¼ E. and S. ¼ W. (N. by E. ¼ E. and S. by W. ¼ W.), distant 7 miles, forming the entrance to the *Gulf of Tchanderli*, a place very little known or frequented, except by the natives. At its southern extremity is the *Village of Palamat*, and to the northward of that, near the entrance of the *River Caicus*, is said to be good anchorage. Vessels also may ride before the *Town of Tchanderli*, protected from north and north-easterly winds.

THE GULF OF ADRAMYTTI. When abreast of *Arguinoussi Island*, the strait that divides the *Island of Mytelin* from the main runs N. N. W. (*N. by W.*); and when you get so far as to be midway between the *Isles of Mosco* and *Cape Molivo*, which is the *N. E. Point of the Island Mytelin*, the channel becomes divided; that turning eastward forms the *Gulf or Bay of Adramytti*, while that to the westward runs out to seaward. The eastern passage is nearly 10 miles wide, but the northern passage is not above half that width: in the former are from 33 to 22 fathoms; but in the latter the depth is much greater, there being 55, 70, 78, and 90 fathoms within it, while a league to the S. S. W. (*S. W. by S.*) of *Cape Baba*, there is no ground with 135 fathoms. From the *N. E. Point of Mytelin* to the head of the *Gulf of Adramytti* the bearing and distance are E. N. E. (*E. by N.*), 26 miles; inland, about 4 miles from which, stands the ancient *Town of Adramytti*, now called *Ydramit*, which still gives its name to the *Gulf*. It is a poor place, situated in latitude $39^{\circ} 34' 50''$ N., and longitude $26^{\circ} 57' 0''$ E., but carries on some trifling commerce. The town is built upon a hill, consisting of nearly 1000 houses, mostly Turkish, and overlooking an extensive valley of olive plantations: the streets are narrow and ill-paved. Its exports are olives, with wool from the interior, which articles are chiefly sent to *Constantinople*; the only thing that at present finds its way to the markets of Europe, is a little of the gall of *Valonia*. When the plague is prevalent in the neighbourhood, quarantine is practised. To the S. W. (*S. W. by W.*) of *Adramytti*, distant 2 leagues, is the little *Town of Kemer*, composed of 600 houses, and situated in a marshy unhealthy plain, which in winter is flooded all round, and has a small river running through it. There is also another village on the northern shore, named *Antandros*; this stands on the slope of a hill which ascends to a considerable height, and is called *Mount Gargara*. There is good anchorage, and well sheltered, behind and to the eastward of the *Mosco Islands*, with from 15 to 10 fathoms water. In the northern channel, between *Mytelin* and the main, is a rock, upon which a beacon or buoy is placed; it lies nearly in mid-channel, and almost midway between *Cape Baba* and *Cape Molivo*: there is a good passage on either side of the rock.

The *Island Mytelin* was formerly called *Lesbos*, but now exhibits few traces of its ancient prosperity. Its length, from *Cape St. Mary* to *Cape Sigri*, is about 38 miles, and its breadth 28 miles: it is mountainous, partly volcanic, and woody. The chief productions are wine, oil, wool, figs, and some corn; but not sufficient of the latter for home consumption; this, therefore, the inhabitants are supplied with, from the opposite continent. The population in 1816 was calculated at 25,000 Greeks, and 3000 Turks. The whole of their oil is exported to *Constantinople*, and a quantity of gall-nuts is sent annually to *Italy*.

The chief town, *Mytelin* or *Castro*, is situated to the S. eastward, in latitude $39^{\circ} 6' 0''$ N., and longitude $26^{\circ} 35' 0''$ E., on a point of land which once was an island, and now is a kind of peninsula, that forms two small ports or harbours: of these the northern one is sheltered by a pier to the northward, and is frequented by the coasters; that on the south is only adapted for boats. Vessels of large dimensions must anchor in the roads, where they lie much exposed to both south and northerly winds. The town is surrounded by a double wall, flanked with towers, and defended by a castle: it contains more than 1000 houses: the streets are narrow, bad, and dirty. At certain times this is not a good place to stop at, for you can obtain no provision, except fish, and even that, in rough weather, is very scarce.

Mr. J. Wilson, speaking of this place, observes, "that on the peninsula upon which the town is built stands a modern-built fortress, intended to defend the town and roadstead: here you may anchor, bringing the castle point N. W. (*N. W. by N.*), and the lighthouse West or W. by N. (*W. by N. or W. N. W.*), distant one mile, having from 16 to 12 fathoms water, the ground holding well. Merchant vessels commonly anchor on the north side of the peninsula, in 6 or 5 fathoms. There is a small harbour in which are 20 and 18 feet: on each point of the entrance is a lighthouse, which is lighted up every night; but," observes Mr. Wilson, "these, like the *Moles at Scio*, are fast decaying, and the light-towers only are now standing." There is a kind of dock-yard here, where small vessels are constructed. At the time he visited this place provisions were plentiful, good, and cheap. The ruins of the ancient *Town of Mytelin* are spread over a considerable space of ground to the westward of the present *Town of Castro*.

PORT OLIVIER, or **JERO**, lies at the southern part of the island: its entrance is in latitude $39^{\circ} 1' 0''$ N., longitude $26^{\circ} 33' 0''$ E., and bears from the *Island of*

Fokia N. by W. $\frac{1}{2}$ W. (*N. $\frac{1}{2}$ W.*), distant 19 miles; and from *Cape Karabouroun* N. N. E. (*N. E. by N.*), 22 miles. Vessels coming from the southward will frequently pass without seeing this port, as the entrance is hidden by the western point of the harbour projecting outward; but they may readily know its situation by the appearance of *Mount St. Elias*, which has a remarkably dark appearance, and rises suddenly up from the sea to a great height, becoming visible 12 leagues off, and to the westward of *Cape Karabouroun*. This is considered to be one of the best ports in the *Archipelago*, within which vessels may ride completely land-locked. Its entrance is narrow, but being within it, you will find yourself in a basin enclosed by low hills thickly planted with olive-trees, behind which rise high mountains, covered with heath and brushwood. The harbour extends about 7 or 8 miles N. W. by N. (*N. N. W.*). The projecting point at the entrance of the port shelters it totally from the swell of the sea, and vessels may lie as safe at the entrance as further in, or at its extremity.

Mr. Wilson, of His Majesty's Ship *Zealous*, who surveyed this Port in 1800, has given us the following Directions. "*Port Olivier* may easily be known by the mountain above mentioned. To the south and south-westward of this mountain lie three small islands, of a round and moderate height; and to the N. westward of these, and westward of the mountain, is a small inlet, but no harbour. About 9 miles to the eastward of the summit of *Mount St. Elias* is the south-west point of the harbour, called *Lime Head*, or *Cape Petera*, from the *Mount* to which the land is hilly. *Cape St. Mary* bears from *Lime Head* E. N. E. (*E. by N.*), distant 3 miles. This *Cape* is high, and covered with brushwood. From the *Cape* to *Cone Hill* the land is somewhat higher than the southern coast; and by these mountains, in clear weather, you may always discover the entrance to the port.

"In rounding *Lime Head* a kind of beach protrudes itself about a cable's length outward, on the extremity of which the sea commonly breaks when the weather is stormy. From this shoal the *Black Rock* lies N. $\frac{1}{2}$ W. (*N. $\frac{1}{2}$ E.*), distant a quarter of a mile; the channel in is between this shoal and the *Black Rock*, at about the distance of 400 yards from the former, where midway you will have 16 and 17 fathoms water. The *Black Rock* is distant from the *North*, or *Black Head*, 270 yards, and there are 8 or 9 fathoms between them; but the former passage will always be found to be the better of the two: the *Black Rock* is steep-to. On the larboard side, as you enter the channel, is *West Bay*, turning short round the beach, and forming a good rendezvous for quitting the port. To sail in you must give the shoal, as above described, a good berth, and anchor nearer to the N. W. than the S. E. side of the Bay, where you will have 13 or 12 fathoms, good ground, mooring on the N. W. side to the rocks, for the S. E. side is somewhat shoal. To the northward of the *Black Head* is another Cove, but this is neither so large, so convenient, nor so safe, for it is open to the S. E. winds: the ground is clay, and holds well, while the depth of water is from 14 to 12 fathoms. The *Black Rock* is as large as a boat. W. by N. (*W. N. W.*) from the *Black Rock*, distant 520 yards, is the *Leek Rock*, much higher than the *Black Rock*, and more steep; its surface is flat, and covered with wild leeks, from which it takes its name. When passing to the southward of the *Black Rock*, you will steer N. W. $\frac{1}{2}$ W. (*N. W. $\frac{1}{2}$ N.*), which will carry you to the eastward of the *Leek Rock*; give this a berth, for at the distance of 10 or 12 yards from it there is a sunken rock: in the middle of the passage are 14 and 15 fathoms, and the channel here is 223 yards wide. About half-a-mile above *Leek Island* is *Vault Island*, lying in the middle of the passage, between *Salt Head* and *Red Head*. Your course to pass from *Leek Island* to the eastward of *Vault Island* is N. $\frac{1}{2}$ W. (*N. $\frac{1}{2}$ E.*); this will carry you on to *Pine Head*, to which a small berth must be given, it running off shoal for about 16 yards, thence falling suddenly off, and having 17 fathoms mid-channel. From this Point keep *Vault Island* on your larboard side; your course will be N. $\frac{1}{2}$ E. (*N. by E. $\frac{1}{2}$ E.*), and in this run you will have from 16 to 13 fathoms. Do not, in passing the above island, be too quick with your helm, as the turn is short; and endeavour to keep in the middle of the channel, because the point opposite the island shoals 15 yards off; and also, because a reef runs from the S. E. point of the island towards the above point, full 60 yards, having only 3 fathoms upon it: the channel here is 230 yards wide, and midway 13 fathoms deep. The passage to the westward of *Leek Island* is equally safe, and quite as broad. The *White* and *Red Heads* are both steep-to and bold, having 10 fathoms within 20 yards of the shore: but to sail to the westward of *Vault Island* is not so safe; for the point before you come to that island, the point opposite to it, and indeed all that shore, is shoal full 20 yards off. The N. W. Point of *Vault Island*

is also *shoal*, and the passage is not above 70 yards wide, with 5 fathoms in the middle of the channel.

"From *Vault Island*, which, by a building upon it, appears to have been an ancient burial-place, the harbour runs in N. N. W. $\frac{1}{2}$ W. (*N. by W. $\frac{1}{2}$ W.*) to *Settee Cove Head*; in this *Cove* four or five vessels may lie in 7, 8, or 9 fathoms, clay, and perfectly land-locked: the anchorage runs in to the N. westward, where, between a *fountain* and a *large blue stone*, you may ride in 8 or 7 fathoms, tough blue clay. A little above this anchorage there is a *Bay*, on the eastern side, into which a small brook empties itself, and near this is a *mill*. The channel here is 900 yards wide. Half-a-mile above the *large blue stone* just mentioned is a small *river*; and further up the *Port* the *Town of Olivier*, which is distant from the *Town of Mytelin* about 5 miles, and from which there is a regular ferry.

"The tide here flows full and change at three o'clock; and spring-tides rise 2 $\frac{1}{2}$ feet."

To the above may be added, that there are several villages on the western banks of the harbour; and about 3 $\frac{1}{2}$ miles from its entrance, on the eastern shore, is that of *Loutra*, containing near 180 houses, poorly built; they are situated on the declivity of a mountain, the foot of which has many olive-trees, and the top is overgrown with heath and shrubs: this village communicates with the *Town of Mytelin*, from which it is distant 3 miles. Beyond that part where Mr. Wilson terminated his survey, the harbour opens into a wide basin, said to contain most excellent anchorage, with good depth of water, and room enough for a fleet of ships. Vessels bound either to the northward or southward, will find this a most convenient port to wait in for a favourable wind.

PORT LONGONE, or, as it is now called, *Port Caloni*, is situated on the S. western side of the *Island of Mytelin*, its entrance being in latitude 39° 5' 0" N., and longitude 26° 5' 0" E. Like *Port Olivier* the entrance is narrow; but when you are well within, it opens to a wide and beautiful basin, with plenty of water for any vessel, and without danger of any sort, there being from 10 to 3 fathoms, on a bottom of clay and mud. It is only frequented by the coasters, who are well acquainted with its navigation, the narrowness of its channel preventing other vessels from using it.

PORT SIGRI. This is a small but convenient harbour, being formed by the *Islands of Sigri*, which lie before and shelter it. To enter, you must steer to the southward of the largest island, taking care of some *rocks* which lie near the island, commonly called *Telamon's Bridge*; these are above water, and may be passed on either side, but the southern channel is the better of the two: the course in is directly West (*W. by N.*); midway between these *rocks* and *Cape Sidero*, and when well in, veer to the northward, and anchor behind the island in 7 or 6 fathoms: the ground is all good, and you may chuse that anchorage which is most convenient. There is a small channel to the northward of *Sigri Island*, but that is only fit for small vessels, and has not more than 14 feet water within it.

Cape Sigri is the N. western point of the *Island Mytelin*, and is lofty and smooth, appearing, when you are making towards it from the S. westward, like an island: it is much higher than *Cape Baba*. *Mytelin* is readily distinguished from a distance by two broad mountains upon it; that to the southward is called *Mount Elias*, and has been already noticed; that to the northward is named *Mount Ordinus*, and lies in latitude 39° 15' 0" N. Having made *Cape Sigri*, in latitude 39° 15' 0" N., and longitude 25° 52' 0" E.; a N. E. $\frac{1}{4}$ N. (*N. E. $\frac{1}{4}$ E.*) course will take you to *Cape Baba*, between which and *Cape Petra*, the northern point of the *Island Mytelin*, is the northern entrance to the *Gulf of Adramytti*, which has been already described. Here is the little *Town of Molivo*, situated on the northern coast of *Mytelin*, which is the ancient *Methymna*, and said to contain a population of 2 or 3000; and almost opposite, on the main land, is the *Town of Asso*, or *Bairam*. The northern shore of the *Gulf of Adramytti* is high land, which continues rising up to the eastward so far as *Mount Gargara*.

Cape Baba lies in latitude 39° 30' 0" N., and longitude 26° 4' 30" E.: it is high and steep-to; but, as before observed, not near so lofty as the neighbouring *N. W. Point of Mytelin*. There is a building near the point of the *Cape*, and from thence the land runs, with very few inflections, N. by E. (*N. N. E.*) to *Cape Janissary*, a distance of nearly 11 leagues, and is, almost throughout, one uninterrupted sandy beach, with only some few spots which are rocky. Vessels may occasionally anchor under *Cape Baba*, and also on various points of the coast; but these anchorages can only be taken during fine weather, for they are wholly unsheltered.

To the northward of *Cape Baba*, distant 17 miles, is *Alexandria Troas*, to the southward of which is *Eski Stamboul*, or *Old Constantinople*: here are many remains of antiquity. The country is so covered with trees, that it appears like a wilderness. *Alexandria Troas*, or *Alexandrian Troy*, is the magazine from whence they obtain the stone balls that supply the batteries of *Constantinople*, and which furnish also the materials for their other buildings. Timber is likewise embarked here for the arsenal. This has been an ancient port, whose vestiges are still every where visible: here is a basin, about 400 feet long and 200 feet broad, but now entirely blocked up by a narrow ridge of sand. Here also are the ruins of a theatre, 180 feet broad, built semicircularly, and situated on the declivity of the rising land, and commanding a view of *Tenedos*, *Mytilin*, and, in clear weather, of *Mount Athos*, which is 28 leagues distant. There are hot baths, whose waters are sulphureous and ferruginous in a high degree, and nearly of a boiling heat: a river adjacently winds along, which in summer is nearly dry, but in winter becomes a very considerable stream. The acorns, or as they are called the valonia of the oaks, which are used in dying, constitute a source of considerable emolument to the natives; who are said to be ferocious, quarrelsome, and not to be trusted.

About 5 miles to the northward of *Alexandrian Troy* is a point of land, called *Koum Bouroum*; and between them are the villages of *Esonio* and *Esno*, before which lies the *Island of Tenedos*.

TENEDOS, called by the Turks *Bogtcha Adassi*. This island is about 6 miles long from E. to W., but not above half that breadth. Near its N. eastern point *Mount Toro* rises up to a conical peak, and is in latitude $39^{\circ} 50' 14''$ N., and longitude $26^{\circ} 3' 45''$ E. The channel which divides this island from the main is one league in breadth, and has 15 and 18 fathoms water in it. Within it, and nearly midway between the N. E. Point of *Tenedos* and *Koum Bouroum*, are two rocky islets, called *Gathronisi Islets*, on the south side of which there is good anchorage with N. easterly winds. Nearly midway between *Gathronisi* and *Koum Bouroum*, a shoal of 19 feet has been lately discovered.

Tenedos is a rocky island, bare and desert towards the sea, but fertile inland. It has always been remarkable for the excellence of its wines, which are said to retain their colour and strength for 14 or 16 years; about that period the colour fades, but the flavour is preserved to a much longer period: they are chiefly exported to *Constantinople*. The town stands on its eastern side, and consists of about 500 miserable houses, being situated near the sea, and defended by a white fortress, mounting 42 pieces of cannon: here the Turkish red banner is constantly suspended. A new fort has also been erected to the N. westward. The port, having a sort of pier to the northward, is well defended from the tramontane or northerly winds, but affords little shelter from any other quarter. The land, with the exception of a few hills, is generally level, having some trees, and extensive vineyards; there also is pasturage for a great quantity of sheep. Captain Frankland anchored in 10 fathoms water, the town bearing N. N. W. by compass, distant one mile, at which time a *Sardinian Frigate* was at anchor nearer to the shore. Several small islets are scattered about the *Island of Tenedos*, and also some dangerous shoals, which lie off its West and N. W. points. W. S. W. $\frac{1}{2}$ S. ($W. S. W. \frac{1}{2} W.$), distant $3\frac{1}{4}$ miles from the southern point of the island, there is said to be a rock under water, which must be carefully guarded against.

Vessels bound to *Constantinople* may pass on either side of the *Island of Tenedos*. If they should take the passage between that island and *Lemnos*, the channel of which is nearly 8 leagues wide, they must take care to give both islands a good berth, and steer nearly midway between the two. The *Castle of Europe* kept open to the westward of the *Great Rabbit Island*, will sufficiently clear all the dangers off the west and north-west part of *Tenedos*; and the same *Castle* brought E. N. E. (*E. by N.*), and well open of *Cape Stala*, the southern point of *Lemnos*, will lead between *Estrate* and *Lemnos*, and also clear of the shoals which lie off the eastern part of that island. To go between *Tenedos* and the main, it is requisite to avoid steering mid-channel, on account of the new discovered shoal before-mentioned; borrow, therefore, somewhat towards the *Gathronisi Islands*, or *Koum Bouroum*, but do not approach too near the *Anatolian shore*, more particularly about *Koum Bouroum*, for there the point shoals some way out. There will be no danger to apprehend if you keep your lead going, never running into less, in working through the passage, than 8 fathoms water, and you may safely go on either side of the *Gathronisi Islands*. Vessels formerly anchored under the Point of *Koum Bouroum*. About 4 leagues to the N. eastward is *Basikia Bay*, which was probably the port anciently called *Achean*, but at present it is choked with sand; and Mr. Laurent, a modern traveller, says, on attempting to land here he found the water so shallow, that

it was impossible to get on the shore with dry feet. On advancing, tracks of hard white sand, diversified, in a few places, with bunches of squills in bloom, and some scorched shrubs, on which herds of buffaloes and camels browsed, were the only objects on which the eye could rest; but at the distance of nearly a mile some houses were to be seen, surrounded with trees.

N. E. by N. (*N. E.*), about $1\frac{1}{2}$ mile from *Koum Bouroum* is *Fountain Point*, so called from a fountain near it. The coast here bends inward to *Busikia*, where there are two rivulets: the northern point of this concavity is called *Cape Troy*, from which the coast continues N. by E. $\frac{1}{2}$ E. (*N. N. E. $\frac{1}{2}$ E.*), $5\frac{1}{2}$ miles, to *Cape Janissary*. There are several fountains near the shore, and about halfway between the two Capes is a little village; there is also a similar village and a fountain near to *Cape Janissary*.

PLAIN OF TROY. Inland, within the above space, is what is called the *Plain of Troy*. It is a flat land, intersected with several rivulets, with some villages upon it; but the precise situation where this once celebrated city stood is totally uncertain; not a vestige of its remains has ever been discovered to indicate its site, and all the labours and researches of the learned appear to be merely conjectural. The plain is rich in verdure; but in winter, when the torrents descend from the neighbouring mountains, the whole country is nearly under water. These torrents descend about the latter end of November, and, until the August following, the ground is not dry enough to be sown with any thing but Indian Corn and Cotton. On the shores are numerous hillocks, called *Tumuli*, which travellers have denominated the tombs of Achilles, Antilochus, Hector, Ajax, Æseyetis, Ilus, Penelcus, Patroclus and other heroes, whose names are recorded in the poems of Homer. There are several traces of ruins within this plain, some of which are extensive, and of prodigious magnitude; such are those near the supposed tomb of Ajax, and also those near *Alexandrian Troy*; but neither of these are the remains of the City of Troy; and the latter ruin is known to have been built by Antigonus, and improved by Lysimachus at the period of Alexander the Great.

Directly North (*N. by E.*) from the *Eastern Point of the Island of Tenedos*, distant about 5 miles, are the *Rabbit Islands*, called by the Turks *Tacohan Adasi*; these are four in number. The two southernmost are called the *Little Rabbits*; they are small, and surrounded by shoal water; there is a passage between them for boats only. The *Great Rabbit* lies nearly at the distance of a mile to the northward, and has a good channel between, with 6, 7, and 9 fathoms water; here you may anchor, if necessary, on a bottom of mud, any where under the lee of the *Great Rabbit*, and nearly in mid-channel. The mark to sail through this channel is, to bring the southern part of a village on the *Anatolian shore* on with a remarkable peaked hill behind it.

Great Rabbit Island is one mile in length from E. to W., but not half that breadth; there are some inhabitants upon it, who cultivate the land, which affords pasturage for sheep and goats; there is also a fountain, and a well of good water upon it. It is surrounded by a shallow bank of hard sand; and off its S. E. Point is another small island, almost connected to the *Great Rabbit* by a reef, over which there is no passage: this is called the *Western Rabbit*, and requires a berth in passing. Off the northern part of the *Great Rabbit* there is a large sandbank, called the *North shoal*, interspersed with rocky points, which is very dangerous, and has from 1 to 4 fathoms over it: it is separated from the island by a channel with 3, 4, and 5 fathoms water; this may be passed through by keeping at the distance of a quarter of a mile from the island; but there will seldom be any occasion to take this passage, and in general the current to the south-westward runs strongly through it. Another shoal, of a similar construction, lies to the north-westward of the *Rabbit Island*: it bears from the *Northern Point of the Great Rabbit* N. N. W. (*N. by W.*), distant one mile, and from the *North shoal* W. N. W. (*N. W. by W.*), distant three-quarters of a mile; between them are 6, 7, 8, and 9 fathoms: this channel may also be navigated, if you are well acquainted with the situation of the shoals, and take proper precautions against the current. To clear the *N. W. shoal*, and pass safely on its western side, bring the *Town of Castro*, in *Tenedos*, open of the west end of *Western Rabbit Island*. To sail to the eastward of the *North shoal*, keep *Castro* open of *Great Rabbit Island*, bearing S. 15° W. by compass; and to sail to the northward, and go clear of all the shoals, bring the *Tumulus*, or *Tomb of Antilochus*, on with another peaked hill inland, called the *Tomb of Achilles*, these bearing S. 79° E. by compass.

The channel between the *Rabbit Islands* and the main is above 3 miles wide; therefore, vessels taking the inner passage, as before described, between *Tenedos* and the

Trojan Shore, after they have passed the *Little Gathronisi Islands*, may steer N. by E., (N. N. E.), which course will carry them to the entrance of the *Dardanelles*; but take care not to go too near the main, for the shore shelves off to a considerable distance, particularly about *Cape Janissary*, where, at about a mile to the southward of which, at the distance of half a mile from the shore, there are no more than 2½ fathoms, and continuing shoal up to the *New Castle of Asia*; therefore give this part a good berth.

CAPE JANISSARY is in latitude $39^{\circ} 59' 30''$ N., and longitude $26^{\circ} 12' 30''$ E. Near its point are a village and some windmills: and at some distance behind is the *Tumulus*, called the *Tomb of Ajax*, or *Achilles*.

THE DARDANELLES, or HELLESPONT. From *Cape Janissary*, N. E. $\frac{1}{4}$ N., (N. E. $\frac{3}{4}$ E.) distant nearly $1\frac{1}{2}$ mile, is the southern point of the entrance to the *Dardanelles*, upon which stands the *Castle of Asia*. N. by W. $\frac{1}{4}$ W. (N. $\frac{1}{4}$ W.) from the *Castle of Asia*, distant 2 miles, is the *Castle of Europe*, situated on the opposite, or northern point of the *Hellespont*. The *Strait of the Dardanelles*, from its entrance to *Galipoli Light*, is about $11\frac{1}{2}$ leagues long, and of variable breadth. Besides the two castles there are several forts and batteries erected on each side, for the purpose of preventing any vessel, in case of warfare, &c., from passing through the channel.

A list of these has been given by Captain Frankland, and are as follow:—

ON THE EUROPEAN SIDE. *Shahim Kalessi*, an old battery, situated outside of the entrance to the *Hellespont*, having about 15 guns, and lately repaired. *Setilbar Kalessi*, the new *Castle*, standing on a promontory at the entrance of the *Hellespont*, having 70 guns and 4 mortars. *Eski Sarlik*, a little fort, about $2\frac{1}{4}$ or 3 miles within *Setilbar*, situated upon an elevated place, and mounting 12 guns. *Killid Bahar*, or the old *Castle of the Dardanelles*, has 64 large guns, 16 of which are calculated to throw stone shot. *Naumattia*, a new battery, situated a little to the right of *Killid*; and at a little distance from that is *Kalessi*, mounted by thirty-five 40-pounders. *Dirman Burun* is a new battery, standing to the left of the *Killid Bahar* about half a mile, and has thirty 60-pounders. *Chiamly Burun* is also a modern battery, situated on the south side of the little *Greek Village of Maida*, and has 30 guns. *Bovalli Kalessi* is a new battery, built upon the site of the ancient *Sestos*, and has 50 guns; being the places of defence on the European side.

ON THE ASIATIC SIDE. *Koom Kalé*, an old castle, standing at the entrance of the *Hellespont*, having 80 guns, 16 of which throw stone shot, and 4 mortars. *Sultani Kalessi*, or *Boghas Hissar*, or the *Dardanelle of Asia*, a strong old castle, having about 120 guns, 18 of which are large guns, carrying stone shot. *Chemin Lik*, a very strong battery, annexed to the *Fortress of Sultani Kalessi*, and mounted with 25 heavy guns. *Tabia* is a new battery, very strong, and joins *Sultani Kalessi* on the right side; it has 30 heavy guns, and a garrison of disciplined troops. *Kiossi Burun*, a new battery, situated on the point of the *Bay of Abydos*, commonly called *Nagara Point*: this is mounted with 44 guns, and *Nagara Burun*, a new fort, with a complement of 84 guns; this forms the last defence on the Asiatic side.

The following observations on entering the *Dardanelles* from the *Archipelago* are by Captain G. Martin, C. B., then commanding H. M. S. *Volage*, in the *Mediterranean*:—

"It is an opinion pretty generally entertained, that ships entering the *Dardanelles* must necessarily wait for a fair wind; and under this impression, numberless merchant vessels are frequently detained in *Basika Bay*, and in the neighbourhood of the outer castles. This opinion I am satisfied is incorrect, not only from my own observation, but from the information I have been able to collect from those who have had opportunities of visiting these straits, under various circumstances and at various seasons of the year. Ships, on leaving *Basika Bay*, and crossing the current, should endeavour to fetch, and if possible, to weather *Imbro*, which may be done with a moderate breeze, (the wind against them) without any difficulty; they will then almost invariably find the wind coming down between *Imbro* and the main, or from the N. W., and, on approaching the main-land, sufficiently favourable to enable them to fetch into the eddy on the Asiatic side, when they can easily work up to the anchorage of the *White Cliffs*. They will be then ready to take advantage of any change or slant of wind, which will enable them to pass the *Dardanelles*, or the *Narrows*, between the old *Castles of Europe and Asia*; this effected, they will then keep the Asiatic shore on board, where there is a remarkably strong eddy; and should the wind not prove favourable for passing *Point Nagara*, they may anchor off the *Kiosk*. I am satisfied that much time is lost from the impression that great difficulties exist

in this passage, and consequently many are deterred from making an attempt, the result of which might be attended with considerable saving of both time and expence—objects of no small importance to mercantile men."

In proceeding up the strait, the *Asiatic* coast gradually rises from the sea upwards to the range of *Mount Ida*, presenting the appearance of a fine and fertile country. But on the opposite side the country is more abrupt, in several parts thickly peopled and highly cultivated; while its various inlets form secure harbours for vessels of every size, and well sheltered from northerly gales, to which these parts are much subjected.

Killid Bahar, or the *Dardanelle of Europe*, has a small town, chiefly inhabited by those who belong to the garrison. The castle has lately been flanked by a stone battery of 43 guns, built in the form of a crescent.

The following observations on the WINDS, &c. are by Captain R. D. Middleton, a gentleman of great experience in these seas, and to whom we are under an obligation for many other additions and corrections which have taken place in the present edition of this work.

"A strong southerly gale in the *Archipelago*, sweeping over the *Sea of Marmara*, combined with what may by chance happen at the same time, the sea being unusually low at the north entrance of the *Bosphorus*, no doubt occasionally occurs to check the rapidity of the current; and it must be this combination which produces the greatest effect that is ever witnessed in the currents of the *Bosphorus* and *Dardanelles*; and should this strong southerly gale immediately succeed a two or three days' continuance of a heavy gale from the opposite quarter, the effect will be more perceptible. I have witnessed a sensible check in the velocity of the current, (especially in the *Dardanelles*;) having left *Constantinople* immediately after three days' extraordinary heavy gale from the north, in September, (when the waters were generally low, before the autumn rains had replenished the river,) the effects of this gale forced an unusual quantity of water out of these channels, and it was immediately succeeded by south winds, (though light;) and in coming through the *Sea of Marmara*, down to the *Dardanelles*, I could not but perceive an evident abatement of the usual currents. It is quite clear, in fact, that there is always a very rapid stream to be encountered in these passages; and this difficulty is increased by the prevailing winds, which blow in the same direction with the current, for at least ten months out of the twelve. The wind may be considered, as a general rule, most variable about the equinoxes, and most constantly from the north during the summer months; (these observations on the winds apply generally to the *Archipelago*, but most particularly to the *Dardanelles*, up to the *Black Sea*, and part of that also included;) and that the change from the north to a south wind mostly, indeed generally, happens at new and full moons, this change being preceded sometimes by rain, but more frequently by a very clear calm night, with very heavy dew, and the south wind rarely lasting more than two or three days, except about the equinoxes, when it will often last longer. Commencing a few hours after sun-rise, at times, it will come up very fresh at sun-rise, (though rarely;) it will, however, often blow for months together, both in winter and summer from the northward, without any change whatever, abating its force during the nights; and in fine weather, and nearly always in summer, a calm lasts all night.

"Gales during the winter almost always commence at sun-rise, and rarely last with much force beyond sun-set; but if longer, the weather is very bad. A light south wind will sometimes commence in the afternoon; and in this case the great probability is, that it will fly round to the north at midnight, and blow hard. Summer gales increase during the day, and lull as the sun goes down; the north winds, or those blowing down the *Bosphorus* and *Dardanelles*, are very fresh generally during the day, while the sun has much power.

"It will frequently happen that a south wind is blowing at the entrances of the *Bosphorus* and *Dardanelles*, extending only a short way up, when there will be a small space of perfect calm, and, above that, a strong wind down. A person sailing about the extremes of these winds, will see ships coming the opposite way with studding-sails sets on both sides. Under such circumstances, if going up, you may take it for next to certain, if you see the north wind is fresh above, that your wind will fail you; and when you approach the calm, betwixt the two, the sooner you get your studding-sails in, and prepare to anchor, or make fast to the shore, the better, unless you are in a situation to beat. The south wind coming up, at first, has often to combat the wind down in this manner, for two or three days, (every day reaching further

up,) before it extends right through, and frequently does not succeed in forcing its way at all, before the north wind will resume its almost constant course; but it is a fair indication of a chance being afforded of making your passage, and you must therefore take advantage of it, to get as far as you can each day while it lasts."

MAIDA, OR METTA BAY, lies N. W. $\frac{1}{2}$ N. (N. N. W. $\frac{1}{2}$ W.) of the *European Dardanelle*, distant 2 miles. Vessels frequently anchor in the *Bay of Maida* when they are detained by cross or contrary winds. But when anchoring in this bay, they should always be careful to get near enough to the shore, and as much as possible out of the current; for if they are too far out, they will lose the anchoring ground, there being, within a musket-shot's distance, 20 fathoms water: a shoal runs out above a pistol-shot from the redoubt. Here the current often runs $3\frac{1}{2}$, and, near the castle, 4 miles an hour.

Having rounded *Point Nagara*, the channel again widens; and proceeding E. by N. (*Easterly*) from this point, $2\frac{1}{2}$ or 3 miles, the channel takes a N. E. (N. E. by E.) direction up to *Galipoli*, the distance being about 15 miles; in this passage there are no dangers, but deep water all the way: keep near the northern side of the channel, and there are several places along shore where you may obtain temporary anchorage if it should be necessary.

Small vessels frequently run into the *Harbours of Lamsaqui and Cardaqui* for a temporary anchorage: and the inhabitants of *Cardaqui* have several boats or barges belonging to them, and are commonly employed in towing other boats, with horses, against the stream. The strait here narrows again, and the passage is still lessened by the southern shore having a flat running a considerable way out; on the opposite shore stands the *City of Galipoli*. The northern shore, all the way from *Maida* to *Galipoli*, is low, and generally even, rising up inland, and in many places projecting outward with rocky points, between which are temporary anchorages; but in sailing along, although you may safely borrow on the northern shore, yet it is not advisable to venture too near. In daytime you may discover your approach to shoal water well enough; but at night it might be dangerous, as some shoals may run off these points which are not well known; these will always be readily avoided by constantly using the lead.

GALIPOLI is the capital, and principal town within this strait; it is built upon a projecting peninsula, and has two harbours, protected by an old castle, which commands the roadstead. There are a mole and lighthouse, the latter forming a good mark for vessels either sailing up or down the strait. There is also a bay to the westward of *Galipoli*, where you may anchor with any wind. The anchorage is inside of a shoal of 2 fathoms water, discovered by His Majesty's Ship *Rifleman*, in 1829, but not seen from any other vessel. There are some rocks joining the point, between which and the land is no passage. The *Road of Galipoli* is situated in front of the arsenal, and has a depth of from 25 to 10 fathoms. There is also a bay to the north-eastward of the city, near which the land is even and low. The bay, which runs in behind where the old lighthouse stood, is seldom resorted to, on account of a large rocky bank of considerable extent, which stretches across it almost from one side to the other.

Directions by Captain Middleton.—"Having entered between the first castles, a vessel may proceed upwards with a strong southerly wind, keeping mid-channel; but, as it is of importance to pass this strait as quickly as possible, to preserve daylight, and on account of the great uncertainty of a southerly wind, it becomes necessary to know how to take advantage of the counter-currents, and slacks, and to be informed of the anchorages, in the event of the wind becoming contrary, or the approach of night. The castles have frequently fired upon vessels attempting to pass in the night.

"Having, therefore, fairly entered the channel, by edging over to the *Asiatic shore*, a slack, or generally a counter-current, will be found (sometimes a considerable one) setting up the strait as far as the point commonly called by the English, *Barber's Point*. *Point Barbieri*, however, upon reference to the Chart, will be found higher up than that point generally so called; which is the point off which the new Charts very properly indicate a spit, or sand, extending a considerable distance to the S. by W. (S. S. W.) The slack, or current, will generally enable a ship to work up as far as this sand. Any where between the entrance of the strait and this point, a vessel may anchor on the *Asiatic side*; but the best places are off some white spots or cliffs, described in the Charts, or in a bay above them, and below the sandy point, in 10, 12, or 15 fathoms, distant one-third to one-half a mile from

the shore, good holding ground. If compelled to anchor lower down, the water will generally be found deeper, and a vessel may probably get nearer the shore than is safe, in 20 fathoms.

"In working up this part of the *Dardanelles*, care must be taken in approaching the shore, as many spots of *foul ground*, and *shoals*, run off a short distance; these are, however, generally easily seen, and with ordinary precaution there is no danger. Nearly all along this shore, and especially in the neighbourhood of the *white cliffs*, are fountains close to the beach, for procuring fresh water; and villages, where poultry may be obtained, which is not generally known.

"On approaching the *sandy point* above described, care must be taken not to get at the back of the *spit*. It may generally be seen very clearly, but sometimes not; and then the direction in which it runs off from the point, must be the guide.

"The safest course from here is to sheer over to the other side, in doing which, a vessel will meet the current running very strongly. This is certainly the worst part of the *Dardanelles* to get through; but pretty close over on the *European* side, a slack will again be found, after passing the valley, above which stands *Selvelequeti*. The Charts lay down a bank along the shore; but if there be any shoal water upon it, it is much nearer to the land than any one would think of going. Proceeding in this direction, a vessel will soon arrive off the *European Castle of the Dardanelles*, off which there is a *shoal*, not extending far out, immediately off the castle. I have passed within a cable's length of the castle without getting bottom with the hand-lead; but the shoal runs off from the point in a southerly direction, and must be avoided, by keeping the *reach* above well open as the castle is approached; the anchorage just below this shoal, as described in the Charts, is good, and in case of the wind failing, must be adopted, as a great point is attained, in having got past the worst of the current.

"The course along the *Asiatic* side may also be taken, after leaving the neighbourhood of the *white cliffs*; but it is not so free from danger: it is more circuitous, and there seems to be a doubt whether a rock with 9 feet over it does not exist in this route; if, therefore, a ship comes up on that side, she must not approach too near to the shore; and having occasion to anchor, may get into ten or twelve fathoms, in a very good berth, any where between a place called *Cubana* and the *Castle of Asia*.

"Having passed the castles, which on either side may be done at a moderate distance, (and where, according to the present arrangements, a vessel is not boarded, and therefore need not heave-to,) there is good anchorage for a small vessel in a little bay immediately above the *Castle of Asia*, or better further on, (on the same side,) at a place called *Captan Baza*, in 10 or 12 fathoms, quite out of the current. In running up this short reach, nothing further is necessary to guard against than the shoal off *Point Nagara*, which, in fine weather, may be readily seen, and must at all events be guarded against. I consider it to extend both farther, and in a more westerly direction, than the Charts or Directions describe; there is no beacon upon it, as has been stated.

"*Maida*, or *Meita*, in the opposite bight, in my opinion, is not a desirable place to anchor at, although it is said that vessels frequently do anchor there. Having passed *Point Nagara*, the difficulty of the current is surmounted, with the exception of the narrow channel off *Galipoli*, and a handy vessel may easily beat up as far as that place, especially by keeping over on the *Asiatic* side, where slack water will be found throughout the whole distance, and in many places a very sensible current in her favour. Great care must be taken when standing in, to keep the lead going, especially in the first part of this passage, at the back of *Point Nagara*, just above *Abidos*. The water there is shoal to a very considerable distance from the land: I was in three fathoms, rocky bottom, at least three times as far as the Charts lay down the bank; but with care a vessel may work all the way upon this side (anchoring any where) as far as *Lamsaki*, where, unless she is a smart vessel, she must wait a wind to pass the strait above, or she may run over to *Galipoli*, and anchor there, if preferred: *Lamsaki* is, however, better to get under weigh from, should the wind come up strong. At *Galipoli* I have found some difficulty under such circumstances, having anchored near the town.*

* It is the opinion of Captain Middleton, the author of the above remarks, that the danger laid down in the Bay of *Galipoli*, on the authority of H. M. S. Rifleman in 1829, does not exist; for he says of the bay—"I have worked all over it, and it is, I believe, free from danger; it is always understood as a safe place with all winds, and without shoal or hidden danger in it."

"In running up, after having passed *Point Nagara*, it is a very common practice to keep over to the *European* side, and with a fresh fair wind it is a matter, perhaps, of indifference. There are places on this side to anchor at, as marked on the Charts, and there are *shoal spots* extending from some of the *points* to be guarded against; but these may generally easily be seen. It is, however, easier to get up on the *Asiatic* side, and, should the wind fail, anchorage may immediately be had; whereas, by proceeding up on the *European* side, mostly in the strength of the current, it frequently happens, on falling calm, that a ship drifts a long way down before she can find anchorage.

"In passing *Galipoli*, when you have gone by the *ledge of rocks* at the back of the town, keep along the *European* side, to avoid the current. The *rocks* at the back of *Galipoli*, which may generally be seen, must be well guarded against, especially in beating. I have worked up this part of the *Dardanelles* into the *Sea of Marmara*, keeping the lead going, when standing in, although there is no danger whatever."

Leaving *Galipoli*, your course into the *Sea of Marmara* will be E. N. E. (*E. by N.*); when, with a fair wind, you will have no further obstruction to *Constantinople*.

THE SEA OF MARMARA.

Captain Middleton says, "In sailing through the *Sea of Marmara* no directions are necessary; the Chart is sufficient for all purposes. In beating through, it is best to keep the larboard shore on board, to avoid the stream of currents setting from the *Bosphorus*; and along this shore anchorage may be had, if necessary. Generally speaking, wherever there is a town, a ship may ride with N. N. E. or even East winds; and when up as far as *Silivria*, under any projecting point along shore, or if blowing very hard from the eastward, she may run under the lee of the *Island of Marmara*, or under the islands to the south of *Marmara*, or under the *Isthmus of Cyziko*; these latter are all excellent anchorages.

"The directions formerly given to pass to the southward of the *Island of Marmara*, in winter, are calculated only to embarrass. If a ship having anchored any where to the S. W. of this island, in getting under weigh, could make this a shorter route, it would be adopted, and not otherwise."

THE NORTHERN SHORE. On the northern shore of the *Sea of Marmara* are the several *Villages* and *Towns* of *Donazlan*, *Peristi*, *Heraclista*, *Kora*, and *Kunos*. From *Kora* the coast turns N. E. by N. (*N. E.*) to the *Gulf of Rodosto*.

RODOSTO is a large town, built upon a hill, and situated on the road to *Constantinople*.

HERACLIA bears from *Rodosto* East (*E. by S.*), distant 20 miles. In passing along near the shore there are two *sunken rocks*; the first is called *Furcata*, and lies about 5 miles before you come to *Heracia*: the other, *Venetica*, is about 2 miles distant: both lie near the shore, and must have a berth in passing. *Heracia* is a considerable town; the port is spacious, and of a circular form. From *Heracia* the land bends inward. E. N. E. (*E. by N.*) from the point, distant 14 miles, is the *Village of Silivria*, and about 16 miles beyond *Silivria* is *Cape Kalierachi*, which is the northern point of an opening or port called *Anachi*, or *Buyuk Tchekmedje*, 3 leagues beyond which is *Kutchuk Tchekmedje*, a similar port: these are a sort of lagoons, separated from the sea by marshy strips of land of modern formation, and have draw-bridges over them. E. $\frac{1}{4}$ S. (*E. S. E. $\frac{1}{4}$ E.*) from *Cape Kalierachi*, distant 4 leagues, is *Point Stephano*, of a reddish colour, with some houses upon it: a bank of sand and rocks extends from it to the distance of half a mile; and this bank extends along shore to the eastward for a mile beyond the *Seven Towers*. Off *Point Stephano*, the depths of water, at three-quarters of a mile, are 5 fathoms; at a mile and a half, 7; and at 2 $\frac{1}{4}$ miles they are 50 fathoms.* To the eastward of the *Cape* is the *Village of*

* According to Captain Middleton, it is not requisite to give *Point Stephano* so wide a berth as is generally the practice of doing, and which is sometimes attended with inconvenience in working up, as, in rounding it, the wind is sure to head you out of the *Bosphorus*, and you are thus forced, at the same time, into the current, and a wind most directly adverse. In proceeding up this last voyage, with the wind just so scant, that by hugging *Point Stephano*, I fetched right up to the back of the town; I am convinced I anchored at least 6 hours sooner than I otherwise should have done, (and with many ships the difference would have been much more considerable,) had I given the point a berth of two miles. I was induced to pass this point very close, from observing a Greek vessel preceding me, (evidently of greater draught of water than my schooner,) and I did so without having less than 5 fathoms, at a distance of a good quarter of a mile.

St. Stephano, and from hence the minarets of *Constantinople* may be seen, resembling in appearance the masts of ships. E. N. E. $\frac{1}{2}$ N. (*E. by N. $\frac{1}{4}$ N.*) distant $4\frac{1}{2}$ miles from *St. Stephano*, is the castle called the *Seven Towers*; off which, at a quarter of a mile distant from the shore, are 7 fathoms; at three-quarters of a mile, 10 fathoms; and at a mile, 13 or 14 fathoms.

THE SOUTHERN SHORE. On quitting the *Hellespont*, or *Strait of Dardanelles*, the *Sea of Marmara* is completely open, and, as before observed, an E. N. E. (*E. by N.*) course will lead you directly within it: this direction pursued for 14 leagues will carry you to the northern point of the *Island Marmara*, from whence you may steer E. by N. $\frac{1}{4}$ N. (*E. $\frac{1}{4}$ N.*) 23 leagues, and you will be at the entrance to the *Bosphorus*, or *Channel of Constantinople*.

The shore of *Asia*, after leaving the *Strait of the Dardanelles*, runs in an east direction to *Cape Karabouga*. Nearly opposite to *Galipoli*, distant $4\frac{1}{2}$ miles, is a *light-house*, which serves, with that at *Galipoli*, already noticed, to point out the entrance of the *strait*, when coming from *Constantinople* in the night; the channel between the *Capes Karabouga* and *Kora* is 15 miles wide. N. E. (*N. E. by E.*) from *Cape Karabouga*, distant 16 miles, is the north point of the *Island Marmara*.

THE ISLAND MARMARA is 10 miles in length and 5 in breadth, and called by the Turks *Marmar Adassi*; it is moderately high, with a range of mountains running along it, which, when coming from the westward, has the appearance of two high hills. Off the N. W. point of *Marmara* is the little *Island Adaces*, which bears from the *Village of Kora* S. E. by E. $\frac{1}{4}$ E., (*S. E. $\frac{1}{4}$ E.*) distant 9 miles. In taking your course E. N. E. (*E. by N.*) from *Galipoli*, you will pass very near this island. The *Island of Marmara* may, in clear weather, be seen quite plain from *Galipoli*. The northern shore is but moderately elevated, and there are several low islands to the southward. The ground is generally clean, and clear of dangers, with the exception of a solitary rock of 10 feet water, which is reported to lie about the middle of the channel, south of the *Island of Marmara*: if, therefore, you should take the southern passage, it will be requisite to guard against this danger. Off the eastern end of *Marmara* is *Lighthouse Island*, upon which are the remains of an ancient lighthouse; from whence an E. by N. $\frac{1}{4}$ N. (*E. $\frac{1}{4}$ Northerly*) course for 60 miles will carry you up to *Constantinople*.

THE PRINCE'S ISLANDS are nine in number, situated between the *Gulf of Nicomedia* and the entrance to the *Channel of Constantinople*. The largest island, named *Prinkipos*, or *Principo*, is long and narrow; the two westerly islands are called *Rata*, or *Protæ*, and *Doxya*: another is named *Chalki*, or *Copper Island*, from that metal being found upon it. There are good passages between them all, and also between them and the *main*.

THE BOSPHORUS, OR CHANNEL OF CONSTANTINOPLE. This channel or strait runs in a N. N. E. (*N. E. by N.*) direction for about 15 miles, and varies in breadth from one mile and a quarter to half a mile. It extends, with many windings, to the *Euxine*, or *Black Sea*, and has a great depth of water throughout, being continually swept along by a rapid current. At its southern entrance are two *light-houses*, one situated at the starboard side on a hilly point of land, about a mile to the south-westward of the *Ruins of Kavac Serai*; the other on the larboard side, a little to the southward of the celebrated *Mosque of St. Sophia*: but the former is now no longer lighted. Having entered the *strait*, which is here a little more than a mile wide, you will have the *City of Constantinople* to the left. The form of the city is triangular: along its southern side is a wall from 14 to 20 feet in height, flanked at intervals with towers, and having six gates or entrances. On its western side is the ancient wall of *Theodosius*, 3 miles in length, with seven gates; the remaining side of the triangle is that which runs along the interior harbour, and forms what is denominated "*THE PORTE*;" here are thirteen gates. This port or harbour is not on the side of the sea, but formed by a capacious inlet, which runs along the north-eastern walls of the city: it is of sufficient depth for the largest vessels, and can accommodate 1200 sail of shipping.

On the opposite side of this harbour are the suburbs of *Galata*, *Pera*, and *Tophana*, where foreigners are permitted to reside; this, therefore, is the principal seat of commerce, and is every where a scene of bustle, noise, and confusion. *Tophana* and *Galata* are situated near the water-side, and consist of long streets inhabited by merchants and mariners: like the city, they stand on a slope, and contain many respectable houses: while at the former place there are large foundries for cannon. The *Mosque of St. Sophia* is in latitude $41^{\circ} 0' 12''$ N., and longitude $28^{\circ} 59' 2''$ E.

The state prison, called the *Seven Towers*, is situated at the S. W. angle of the city, where the southern wall commences, and terminates at the *Seraglio Point*. Having opened the *Bosphorus*, and finding the current to be too strong, the wind unfavourable, or both united, you may anchor to the south-westward of the *Fanar Lighthouse*. To the east appears a little rocky island, upon which stands a tower or guard-house, commonly called the *Tower of Leander*: and from the western shores of the entrance rises the city, an amphitheatre of reddish-coloured buildings, agreeably mingled with trees, and dark domes belonging to the mosques and *bezesteens*: above which are seen the bold and lofty minarets, surmounted with a crescent, rising up to a vast height.

Sailing Directions for the Bosphorus, by Captain Middleton.

"On nearing *Constantinople*, having passed *Point Stephano*, a ship must approach the western shore, to avoid the current running out of the *Bosphorus*. If the wind be fair, she may steer round the *Seraglio Point*, at about mid-channel. If she goes too near the point, a very strong current will be found directly off it, setting into the harbour with great velocity amongst the shipping on the *Constantinople* side, before she will have time to shorten sail. Navigators unaware of this, with a strong south wind, have been obliged to run on shore, to avoid further damage. It is, therefore, better to keep mid-channel until the harbour is quite clear, and then to steer over toward the *Artillery Wharf* at *Tophana*. By doing this, the rush of water up the harbour will be avoided, and there will be sufficient time to take in sail, and to choose an anchorage.

"Should, however, the wind be north, when above *Point Stephano*, a tolerable smart ship may work up into the harbour, by beating up, in the first instance, along the west shore, close up to *Constantinople*, and then standing directly over to the other side, where she must work up along the *Scutari* shore, making short boards, and keeping the lead going when standing in; if she can reach *Leander's Tower*, with a brisk wind, she will fetch over the stream again into the harbour.

"Ships that cannot beat to windward, will often work up along the *Scutari* shore, and having reached *Leander's Tower*, may make sail, and fetch across. In either case they must keep well to windward, to avoid the current setting up the harbour above mentioned. In doing so, they will find the current under their lee-bow setting right out of the harbour up the *Bosphorus*. Coming in against this current gives time. If a ship is too heavy, and cannot work up, nor make sail across the currents after warping up, she must remain at anchor at the back of the town, in 11 or 12 fathoms, and wait a wind.

"It is of great importance, either in entering or leaving *Constantinople*, to understand the nature and direction of the currents. The stream, coming down the *Bosphorus*, sets directly upon the *Seraglio Point*; it there divides; the great body of the water running with considerable velocity, along the *seraglio* walls into the *Sea of Marmara*, and a portion of it running violently up the harbour along the *Constantinople* side. The distance to which this current runs up the harbour varies; but generally, I consider, that it does not extend far (at least perceptibly,) beyond abreast of the *Custom-house Wharf* at *Tophana*. There it meets with the waters of the harbour, already elevated by the resistance this current presents to the escape of the supply from above, and finds its way out by the other side, forming a current running out, often with considerable rapidity, past the *Custom-house Wharf*, and along the *Tophana* shore, up the *Bosphorus*, on the *European* side, as far as *Arnoudkeni*. It sets directly upon the *Point of Efendi Bornou*, and off into the stream, at the commencement of what is called the *Devil's Current*, along with which it comes again down the *Bosphorus*.

"These two currents in the harbour, the one setting up, and the other down, leave between them an eddy, in which it is impossible to keep a ship steady at her anchor for a moment; and a clear anchor cannot be insured for five minutes. In this space, also, the bottom is so loose, that the anchor will not hold; and a ship will be continually driving without any apparent cause. It is, therefore, better to go higher up, and get into the tiers made fast on shore, or alongside the *Custom-house Quay*, or moored head and stern, on the *Constantinople* side. The harbour is deep throughout, and the anchorage is generally in 20 fathoms.

"To proceed up the *Bosphorus*, the current above described points out the course to be observed as far as *Arnoudkeni*. A small handy vessel may easily work up; or,

by taking advantage of the calms early in a morning, she may be towed up. There are a few shoals in this part, but they are generally pointed out by stakes, these being so placed as often to form a railing enclosing the whole shoal. In beating up, a vessel should stand off to where the currents join, which will readily be perceived. There is no danger which is not clearly marked out, as far as *Ortakeni*, on the *European* side. Off the point of this place there is a shoal, which, however, does not extend above twenty yards; in working up it will be necessary, off this point, to make very short boards. No stream upward is here perceptible with a north wind, the surface being probably affected by the wind down, though the current is certainly going up underneath. Short boards must be made till the next point is passed above *Ortakeni*, immediately off which the current is affected in the same manner as at *Ortakeni*; and I have found this point the worst part to beat round. Here a line may be run on shore, and a vessel may track up, if preferred; or having worked round to the extent of fifty yards, the current will again be found running up strong, and continuing all the way to the *Point of Efendi Bornou*, as before stated.

"After passing the last point, described as difficult to get round, two shoals will be seen, nearly dry, the first having a stone pillar upon it. They may both be passed inside, but the uppermost of the two runs off shoal some way, in a S. W. by S. (S. W.) direction; in beating, it is therefore better to pass outside this one, and perhaps the first also. Having arrived at *Arnouldkeni*, a vessel may anchor in 14 fathoms, and her stern should be hauled close to the shore; or, if few vessels be there, room will be found to make fast alongside the wharf, without letting go an anchor. If the wind fails in this passage, the anchorage just below the *Sultan's summer palace* is good, or a vessel can bring up at *Ortakeni*, which is a snug little berth, or higher up she may make fast alongside the wharfs; here she must wait for a south wind, or track and warp up round *Efendi Bornou*, and across the *Bay of Bebek*, which, however, is not to be recommended for a heavy ship.

"In proceeding from *Arnouldkeni* with a south wind, be careful not to be set upon the *Point of Efendi Bornou*; it is best to edge over at once to the *Asiatic* side, and sail up near the shore, until you open the *Castle of Anadoly Hissar*; then sheer over again to the *European* side, and you will fetch a large burial-ground, below the *Castle of Roumely Hissar*: you will now proceed close along this shore for some way.

"Ships sometimes, on leaving *Arnouldkeni*, sail up the *European* side, but here the current is difficult to stem, unless with a fresh breeze; and in *Bebeck Bay*, which will soon be opened. In sailing along the wharf, is a shoal marked out by stakes; but the fact is, that the whole of the bay is shoal, and you will get on shore if you keep along the wharf after well opening it. It is better, therefore, to avoid *Bebeck Bay* altogether, and sheer over to the other side, as already directed.

"A vessel should continue sailing up the *European* side, past the *Castle of Roumely Hissar*, as near as convenient, till, having got sight of the bends which the channel takes into the bays (on the same side) as far as *Yeni-Keni*, a course must be shaped direct for this last-named point; or, at all events, a moderate berth should be given to the shore, as deep water does not extend near it in the bights; and off the fine little anchorage at *Stenia* is shoal water at its entrance, on both sides.

"Approaching *Yeni-Keni*, there is good anchorage in 8 or 9 fathoms, a good distance from the shore; if the wind fails before reaching this, a vessel may sheer alongside the wharfs all the way from the burial-ground below *Roumely Hissar*, except in the bights, where anchorage will be found. Having arrived off *Yeni-Keni*, as the reach above is opened, a vessel must sheer off, and give the shore a good berth, as a shoal lies immediately round this point, to the north, extending some distance, and with a large ship must not be approached within at least two cables' length. It will be as well not to approach the shore nearer, till abreast of a battery a little below *Terapia*, and then to sheer, at a moderate distance from it, for *Bouyuckdere*, where there is excellent anchorage, in from 5 to 10 fathoms, all along the village. Should the wind fail, a vessel may go into the little Harbour of *Terapia*, or, what is better, may sheer over to the other side, where there is excellent anchorage off the *Sultan's Valley*, just above *Beykos*: a vessel may tow up to this anchorage in a calm for a considerable way from below it, where she may ride in 5 fathoms, and have a rope on shore to the trees. It is here that the British frigate lays that attends the ambassador, just off a large building lately erected as a tanning establishment, under the superintendence of an Englishman.

"From this anchorage, if a vessel start with a strong south wind, she would steer over to *Terapia*, and proceed round by *Bouyuckdere*, to avoid the shoals, which are very extensive on the *Asiatic* side: but it is often advisable to pass to the eastward of these shoals; first, in calm mornings, or light nights, a ship may be towed through this channel to the battery, which must be passed, to open the *Black Sea*. From hence, by tracking and towing during the calms, a vessel may get as far as the *Castle of Anadolissnar*, and be ready to slip out into the *Black Sea* with the first slant of wind; or, having sailed in this route till opening the *Black Sea*, (as happened to me,) and the wind coming down, a smart vessel may work out.

"In passing within these shoals, keep in 11 or 12 fathoms, borrowing upon the shore. These shoals are not laid down correctly in any chart that I have seen: in the last new charts they are something too far to the eastward. To pass round them, it is only necessary, in going either up or down, to keep well over to *Bouyuckdere*; and to the westward of a line drawn from the north end of this village to *Yeni-Keni*, will be a safe course to clear their western edge.

"In proceeding for the *Black Sea*, and having passed the *Castle of Roumely Hissar*, a bank will be seen on the same side, just awash, on which there is a stone pillar. Further up, there is said to be another danger, imperfectly known.

"An English ship, some years ago, having come in from the *Black Sea*, and anchored just below the *Castle of Anadolissnar*, getting under way and proceeding down along the *Asiatic* side, struck upon this danger, which the master described as a rock; there is no necessity to approach the supposed situation of it, except a ship is beating, towing, or tracking up, in which case it must be guarded against. The master of H. M. ship *Rifleman* describes it to lie one-fourth of a mile from the shore, and opposite a large fortress.

"In her further progress out to the *Black Sea*, a vessel should keep along the *European* side; the current is slack there, and there is good anchorage all the way to the southernmost castle; whereas on the other side there being mostly deep water, you are more likely to get becalmed under very high land, and there is no safe anchorage.

"In coming in from the *Black Sea*, avoid the shoals as described in the course up, and then observe that the opposite sides of the channel which you have chosen in your progress up, are generally the best passages down, to take advantage of the currents; and when within a mile or two of *Constantinople*, according to the strength of the wind, sheer over to the *European* side, where you will meet the current, as already stated.

"If only intending to wait for a firman, it is better to bring up a little below the *Sultan's Summer Palace*, where you will find fountains abreast of you, to fill up the water. In working down there appear to be no shoals to guard against, but what have already been noticed, except on the *Asiatic* side, opposite to *Stenia*, where the shore must not be approached too close; but in working down, a ship would naturally be kept making short boards in the strength of the current, which would avoid every shoal in the whole extent of the channel, without a knowledge of them.

"The current of the *Bosphorus* runs at all times down with great strength; and in that part denominated the '*Devil's Current*,' it is hardly possible that any thing but a cutter of the finest construction can beat against it; I have, however, seen an English gentleman's yacht do so, though I apprehend that the current might then want something of its usual force. I have certainly seen the stream running down at this point at least five, and, perhaps, sometimes nearly six knots; the velocity, however, is sensibly checked at times, though I must confess that I have never witnessed it running with any thing short of great rapidity. Some persons pretend to say that it is entirely stopped at times; and I have even heard it stated that it sometimes runs up, but this is clearly impossible ever to happen. The *Black Sea* must of course be very considerably higher than that of *Marmara*, as this latter is above the waters of the *Archipelago*, or the current would not run down through the channels between them as it does; to check it at all, something like an equalization of the heights of these different seas must be presumed on, which would either overflow all the low land about the entrance of the *Dardanelles*, or the *Black Sea* must become so much exhausted of its waters, or deprived of its usual supply to such an amount, as would leave the *Bosphorus* materially diminished in height; whereas neither of these cases ever occur to any extent; perhaps two feet is as much as any one has ever observed this difference in height to amount to, and that rarely; which, though sufficient to account for a trifling check in the velocity of this current, yet

leaves the declivity in the whole extent of the stream nearly the same. My observation of the height of the water in the *Black Sea* leads me to believe that it is, generally, during summer, from two to three fathoms lower than in winter."

THE EUXINE, OR BLACK SEA.

GENERAL REMARKS. The *Black Sea* is situated between the parallels of $41^{\circ} 6'$ and $46^{\circ} 37'$ North latitude, and the meridians of $27^{\circ} 25'$ and $41^{\circ} 46'$ East longitude from *Greenwich*. Its greatest breadth, from the little *Gulf of Penderacklia*, on the south coast, to the *Dnieper*, on the north, is 330 miles; and its length, from the *Gulf of Bourgas*, on the coast of *Roumelia*, to *Poti*, on the coast of *Abasia*, is 629 miles. In the whole of this extent there are scarcely any rocks, and almost every where there are excellent anchoring places.

The southern coast of the *Crimea*, and the coast of *Anatolia* and *Circassia*, abound in high mountains, which afford excellent land-marks. In *Roumelia*, on the west, there are only those of *Cape Kaliakri*, *Cape Eménéh*, and *Iniada*. The mouths of the *Danube*, and the whole coast between them and the southern part of the *Crimea*, are dangerous; being low, they can only be seen at a very short distance.

It is only near the coast that the currents can cause errors of any consequence. That which is caused by the *Don*, after crossing the *Sea of Azov*, and passing through the *Strait of Kertche*, continues to the S. W. along the southern coast of the *Crimea* to a certain distance from *Cape Khersonese*. Those of the *Dnieper* and *Dniester*, running towards the south, join that of the *Danube*, and flow on in one current towards the *Bosphorus*, but which only receives one part; the rest makes its way along the coast of *Asia* towards the east, and afterwards turns northward along the coast of *Mingrelia* and *Circassia*. This general direction of the currents observed, however, sometimes yields to the violence of the wind, or to other certain local circumstances.

In the *Black Sea* a N. E. wind brings fine open weather during the summer months, and causes cold in the winter; a N. W. and West wind, on the contrary, is generally accompanied by fogs and damp weather. During the summer, northerly winds commonly prevail; and it is only in the beginning of autumn and in spring that the southerly winds blow.

Vessels from the *Mediterranean* have been frequently detained in the *Dardanelles* and *Bosphorus* for whole months, on account of the northerly winds, which, with a favourable wind, they may run through in 48 hours. The short distance between the two shores of *Asia* and *Europe* renders the current so rapid, that it is almost impossible to gain ground by attempting to beat through. The same current greatly assists those vessels, which, coming from the *Black Sea*, meet with a southerly wind.

The coast of *Asia Minor* is very seldom subject to storms from northerly winds, as their direction is commonly changed by the mountainous land, to east or west, when they generally fall off into light airs. The same circumstance has often been observed on the coast of *Circassia* with West and S. W. winds, and on the southern coast of the *Crimea* with S. E. winds.

Remarks on the Wind, Weather, &c., by Captain Middleton.

WINDS AND WEATHER. "The thick weather supposed to prevail in the *Black Sea* is an imaginary danger. There are fogs in it occasionally, but these never last long, and, like fogs everywhere else, are unaccompanied by much wind; these, in fact, mostly occur in spring and summer, when the weather is otherwise extremely fine, and are soon dispelled by it and the moderate east wind which usually accompanies them. Heavy gales are never accompanied with thick weather in this sea, unless a dark cloud, passing quickly with a squall, may be called so; and I really believe that this sea is not subject to worse weather, either as to violence or frequency of wind, than the *Archipelago*, nor do the gales last longer.

"The *Bosphorus* has never been known to be frozen over; but it is not so with the *Harbour of Odessa*, which is generally frozen up every winter, as well as the bay, and often ten miles out to sea. Indeed, the whole of this part of the sea to the *Dniéper* is usually frozen in the winter months, (breaking up occasionally,) as is also the *Danube*; causing, of course, some floating ice on breaking up, but this immediately disappears; and, with these exceptions, the *Black Sea*, generally, is every where free from ice.

"Gales sometimes occur in this sea, but I question if they ever amount to 'storms'; their duration is short, for they rarely last more than 12 hours, without considerable abatement of strength. It frequently happens with vessels navigating this sea, that they cannot find the *Bosphorus*, if blown out of their usual route along shore, and get bewildered by the variable winds and currents they meet with. But navigating with chronometers obviates all this; and notwithstanding the idea of thick weather being prevalent, I am confident that, taking all the year round, there is not one day in twenty that an expert navigator would be at a loss to know his exact situation.

"The whole dread of this sea resolves itself into the difficulty, and often danger, experienced in making the entrance of the *Bosphorus*. The common method of doing this is to get to *Iniada*; and then, if the weather is not considered favourable, vessels bring up there, and wait until it is so. The coast from thence, for about 45 miles, to the *Bosphorus*, is a dead lee-shore, with northerly winds; and if a vessel misses the *Bosphorus*, it is generally fatal to her. A person of experience, however, can hardly fail to make the entrance in this manner; but that it is attended with danger is evident, for with leewardly ships, should the wind increase to a gale, it cannot be a matter of surprise that losses should often occur. The fear of missing the *Bosphorus* induces masters of vessels to run along shore at only such a distance as insures their seeing it clearly, and if they miss it under such circumstances, certain loss is almost the consequence.*

"Now, if a man, confident of knowing the exact situation of his ship, would keep out to sea, (I am now, of course, alluding to ships capable of keeping the sea,) until he gets the *Bosphorus* to bear S. W. by S. (*S. W.*) to S. W. by W. (*W. S. W.*); 30 or 40 miles, and then run for it on these bearings, it may be seen, in clear weather, 25 to 30 miles; no wind could endanger him for a moment. He should steer directly for the entrance, unless with a scant wind; in which case he would naturally keep something to windward, judging, that, in addition to its being always more advisable to do so than otherwise, there may be a current setting to leeward.

"The erroneous notion generally entertained of the nature of the weather in the *Black Sea*, even at *Constantinople*, admits of observation. This place, situated between two seas, is subject, perhaps, to worse weather, and more rigorous winters, than any other in the same latitude in *Europe*. There is, generally, but little bad weather there until about Christmas, though occasionally strong gales, when it becomes cold, with rain and snow, with short periods of fine weather till May or sometimes June. It is, in fact, but little better than a winter in the south of *England*. During all this, a resident at *Constantinople* (being previously impressed with the general notion of the difficulties of the *Black Sea*,) naturally concludes that the weather is equally bad there, the wind blowing almost constantly from that direction; whereas the fact is, that the clouds are impelled over that sea, (except during occasional gales,) until they come in contact with the high land of the *Bosphorus*, when rain, snow, and thick weather ensue, while it is fine weather in the *Black Sea*. I have come in three times in winter, and experienced this; I have on all these occasions had fine weather, (strong N. E. wind,) with the sun out, and, until a close approach to, and almost indeed entrance into the *Bosphorus*, a continuance of it; and on fairly entering, have found a winter's day, with sleet, rain, and thick weather.

* Captain Middleton says, "Of the many hundreds of foreign vessels that trade annually in this sea, there perhaps is not one in a hundred that, from their nature and equipment, can do so, except in fine weather and with a fair wind: the idea of encountering a contrary gale, is with them quite out of the question; and if they cannot find a port under their lee, they are lost. Of the few that may be fit to weather a gale, the probability is, that they are commanded by such people as, from their habits, and the general practice among them in the *Mediterranean* navigation, have no idea of doing otherwise than to bear up, on the first appearance of what they call bad weather; added to this, there is scarcely one among them who can form an idea where he is, a very few hours after losing sight of land."

I have also observed this, on lying wind-bound up the *Bosphorus*; and looking out into the *Black Sea* during bad weather, have observed it quite clear in the offing. The whole coast of the *Black Sea*, and the high lands about *Constantinople*, are frequently covered with snow for months; indeed, the mountains, in many parts along the shores, are covered all the year round; and yet I doubt, if at sea, along all the coast from *Constantinople* to *Georgia*, there is ever either frost or snow. I have been laid, at two cables' length from the shore on this coast, in November and December, without a particle of snow falling on board, when the hills to the water's edge have become covered in one night, during which we have had nothing but rain.

"Snow, no doubt, falls in the northern part of this sea occasionally. The north shores are cold and bleak; the northerly winds passing many hundreds of miles over a low, barren, bleak Russian country; which is, in fact, the cause of the constancy of winds from that quarter rushing to the more rarified atmosphere of latitude 41°; and upon the cultivated fine country about *Constantinople*, considerably heated during summer, and occasionally all the year round, during the short intervals of southerly winds; immediately after which, the strongest gales from the north are of course to be looked for.

CURRENTS. Captain Middleton also says, "On the subject of the currents of the *Black Sea*, I have observed that the waters of this sea are set in the direction of the prevailing wind, and it is essential not to lose sight of what will often be the case, namely, a considerable current, with little or no wind at all. I was set for two successive days, from 20 to 25 miles each day, to the eastward, on going to *Trebisonde*, with the lightest possible easterly wind. But it had blown fresh from the east for some days previous, and this current was evidently a reflux of the waters which had been forced to the westward. Therefore, it is essential for navigators to keep in mind as well the wind that has been blowing, as that which blows.

"Currents are a source of dread, and cannot be estimated so as to enable a navigator to do more than always to conclude that he may be wrong in his supposed situation, in the absence of celestial observations. From my own remarks, I have arrived at the following conclusions respecting the currents in the *Black Sea*. The water discharged out of every river that falls into it, has a tendency to be drawn towards the *Bosphorus*; as they join the sea, they set fairly out during calm weather, and merge into the great body of the waters. But supposing the wind to blow fresh along shore at right angles with the stream which it disembogues, the current is set in the same direction with the wind, which, perhaps, alters the day after to quite an opposite point, and the current follows it. This I have particularly observed, having been anchored for several months very near the junction of a river with the *Black Sea*. I believe that every river which falls into this sea (or any other free of tides) is more or less so operated on. And as, from the very irregular nature of the coasts of the *Black Sea*, twenty different winds may at the same time be blowing on them, I think that the only conclusion which can be formed of the general direction of these currents is, that they all tend eventually to the *Bosphorus*, and cannot be reduced to any rule beyond the opinion that a navigator may form of the probable direction of each separately, as he passes the vicinity of the rivers, from the wind that happens to blow there at the time.

"There is no flow of tide whatever in the *Black Sea*; the currents, and the direction of the wind, cause occasionally a small difference in the elevation of the water at different places, which overpowers the influence of the heavenly bodies upon its waters, and causes their effects to be imperceptible.

"I fully believe that the idea of there being always a current running to the south and eastward, across the entrance of the *Bosphorus*, is erroneous; it is, however, a commonly received opinion, but I have not ascertained that the fact of its existence has ever been established. I have navigated the *Black Sea*, in an easterly direction, sailing out of, and making the *Bosphorus* in this direction, and I have in vain looked for a current from the N. W.; the idea of which existing has, I apprehend, originated in the wish to account for errors in reckoning on the part of those who have got on shore in overrunning the entrance.

"From what I have already said of the currents in the *Black Sea*, I think we may fairly conclude upon the great improbability of such a stream. If it is always going past the entrance of the *Bosphorus* when the wind is from the north, it may be asked, what becomes of the water? the wind is from that quarter, in this situation, at least ten months out of the twelve; and a stream, setting continually along this shore across the *Bosphorus*, could hardly be left a matter of doubt, if it existed: I have

looked in vain for it, and I am satisfied that it does not exist. It appears to me that the waters coming from the rivers enter the *Bosphorus* directly from the sea, a stream being also set along shore towards the entrance, from whichever side the wind happens to blow; the probability being, that this stream is strongest from the N. W., on account of the prevalence of north winds influencing the waters of the *Danube*. Whichever way, therefore, a ship may approach the *Bosphorus* with a fair wind, it is probable she will get ahead of her reckoning; but I think it can rarely happen that, under any circumstances, the currents do not all merge into the *Bosphorus*, without setting across its entrance; and therefore I can see no reason why, with an east wind, a ship should not make the channel to windward, calculating upon a lee current, as well as doing the same, should the wind be on the other side; only making a greater allowance, in the latter case, for the velocity of the currents."

Remarks on the Vicinity of the Northern Entrance to the Bosphorus.

On the last point on the coast of *Europe*, at the entrance of the *Bosphorus*, as also on the opposite shore of the coast of *Asia*, are a lighthouse, fortress, and a few houses. Some rocks, above water, called *Kyanel*, or *Cyanneas*, are grouped around it, on one of which is an ancient altar, commonly known by the name of *Pompey's Pillar*. Latitude of the lighthouse $41^{\circ} 14' N.$, longitude $29^{\circ} 7' E.$

The coast near the entrance of the *Bosphorus* is of moderate height, and not very remarkable; the few objects which serve as beacons to the mariner being often hidden by fogs, which render it more dangerous, as no place of refuge in the neighbourhood can be found, so that the least mistake with a strong northerly wind would inevitably cause shipwreck.

Headlands, east of the entrance to the *Bosphorus*, are white.

A false entrance of the *Bosphorus* is about 15 miles east of the real one. With the entrance of the *Bosphorus* bearing S. W. by W. (*W. S. W.*) the false entrance is very deceptive. It may be known from the true one by observing, that the land to the westward of it is high, rugged, and irregular, whereas land similar to that is to the eastward of the true entrance; the land to the westward of which is not so high, and is more uniform, diminishing gradually to what appears a cape, which is probably *Kara Bouroun*.

During the autumn and winter, the greatest part of the vessels returning from *Odessa*, and the coast of the *Crimea* to *Constantinople*, run close in with the shore, in order to make *Cape Kaliakri*, or *Calaghria*, from whence they take their departure. A great many even keep in with the shore after having passed the *Cape*, and pass successively *Cape Emonch*, the mountains of *Babia*, and *Cape Iniada*; and should the weather be stormy or foggy, they take shelter at *Kavarna*, or *Sizopoli*, to wait a favourable opportunity of running to the *Bosphorus*.

In approaching the entrance of the *Bosphorus*, in clear wheather, you may see the *Mountain of Maltepeh* at 30 miles' distance, while beyond this to the east are two other hills, called the *Two Brothers*. These three are all on the *Asiatic* side of the *Bosphorus*, and may be seen from any direction. There are seven red cliffs on the coast of *Europe* to the north of *Domouzdereh*, and a white one on the *Asiatic* side. These form excellent beacons in thick weather, for often, when the tops of the hills are enveloped in fog, their bases are plainly seen. The two lighthouses built at the entrance of the *Bosphorus* serve the same purpose, but are of very little use during the night, on account of the bad manner in which they are lighted.*

On the mountain which overlooks the *Lighthouse of Europe*, there is, or was a single tree, which may be seen from the N. W. by N. (*N. N. W.*) at the distance of 20 miles. This has been an inestimable mark to navigators; but, as it is possible it may be destroyed, it is a most desirable thing that a beacon of a more durable nature was constructed in its place. Nearing the *Bosphorus*, you will at length perceive a wood and the *old Genoese Castle*, on the *Asiatic* side of the strait.

It is very seldom that vessels make the land on the *Asiatic* side of the *Bosphorus*, because the current there sets at times to the eastward, and there are not so many remarkable points on that coast; and vessels nearing it with a strong northerly wind, are very much in danger of getting embayed, if not driven absolutely on shore.

At 50 miles east from the *Bosphorus* are the *Isle Kefken* and *Cape Kirpeh*, remark-

* Two new lighthouses have been erected by the Turkish Government at the entrance of the *Bosphorus* from the *Black Sea*, upon an improved principle, one of which (that on the *European* side) has been represented by Masters of vessels as being very effective.

able for their projection into the sea; and also from three hills which resemble *Maltepeh* and the *Two Brothers*. The anchorage of *Kirpeh*, situated to the S. W. by S. (S. W.) of that of *Kefken*, and only separated from it by a point of land, has been much praised by Captains who have taken shelter there. They anchor in 8 or 10 fathoms water, exposed to the west, with a hawser fast on shore. The shore is edged with a few rocks, but these are not so dangerous nor so numerous as at *Kefken*.

GENERAL DIRECTIONS FOR THE BLACK SEA, &c.

In pursuing the directions for the *Black Sea*, we shall commence with the western point of the *Bosphorus*, on the coast of *Europe*; describing the western shores of that sea and its harbours, the *River Danube* with its channels to *Galatz*, and the coast northward to *Odessa*; thence following the *Gulf of the Dnieper*, turning southward round the west and south coasts of the *Crimea* to the *Strait of Kertche*. We shall then return to the *Bosphorus*, and commencing again with the eastern point, describe the whole southern, eastern, and north-eastern coasts, till we again arrive at the *Strait of Kertche*. Thence the western and eastern shores of that Strait, with the channels and route through it; and proceed along the eastern coast of the *Sea of Azov* to the *Gulf of Don*, and *Azov*, *Taganrog*, &c.; returning by the northern and western coast, past the *Sivache*, round southerly and easterly, concluding the whole navigation of these seas at the western point of the *Strait of Kertche*.

1. THE WESTERN AND NORTHERN SIDES OF THE BLACK SEA, FROM THE BOSPHORUS TO THE STRAIT OF KERTCHE.

Variation, One Point West.

COAST OF ROUMELIA.* *Domouzdereh* is a village situate on a steep shore, about six miles from the *Bosphorus*. Between it and *Cape Pharanaki*, about four miles westward from the latter, is a fort, near the village of *Kilia*. Between this and *Domouzdereh* there is a bay about two miles broad, with a bottom of hard sand, shelving off, so as to allow vessels to approach to about 250 fathoms of the shore. This part of the coast is sheltered from the S. S. E. by the South to West winds, and open to the North; but unless they become violent, they are not considered dangerous.

At 22 miles W. by N. (W. N. W.) from the mouth of the *Bosphorus*, is *Cape Kara Bouroun* (Black Cape), on which some fortifications, barracks, and a few houses are to be seen. From its resemblance to the land in the vicinity of the *Bosphorus*, it is called the *False Canal*; and the mistaking this for the real *Bosphorus* has been the cause of many wrecks. To the west of the *Cape* is a bight in the land, bordered with rocks, and a vessel once driven in cannot get out again, as there is not sea-room enough to tack.

MEDIAH. At 30 miles N.W. by W. (N.W.) from *Kara Bouroun* is the *Town of Mediah*. This place has a small roadstead exposed to easterly winds, but sheltered by *Cape Serves* from the winds from the north. Here vessels may anchor in 10 or 12 fathoms, sandy bottom.

THE BAY OF INIADA. *Cape Kousi* forms the north-eastern point of the *Bay of Iniada*, is in latitude $41^{\circ} 53' N.$, longitude $28^{\circ} 3' E.$, and bears from the entrance of the *Bosphorus* N.W. $\frac{1}{4}$ W. (N.W. $\frac{1}{4}$ N.) distant 62 miles. It may be easily known by its yellowish cliffs, and the tuft of trees on its summit. As you open the *Bay of Iniada*, you will discover successively some houses, fortifications, and then a ruined tower; to the southward of which is an anchorage in 6 or 7 fathoms water, bottom of mud and sand, at about three-quarters of a mile from the shore, with the *Cape* bearing East (E. by S.) distant one mile and a half, and exposed to all points from true East to South. A very heavy swell runs in here at times, and causes vessels to roll very heavy; and then an eddy sets pretty strongly towards the *Cape*. Vessels, on leaving the *Bosphorus*, and meeting with contrary winds, frequently run for this place. The *Village of Tersaneh* stands on the N. W. shore of the bay.

* "A very erroneous opinion prevails respecting the western shore of this sea. It has been asserted, that there is no safe anchorage for vessels on it; but, to those that have frequented them, the anchorages along the west coast are well known to be quite safe; and with respect to vessels that delay their departure from this dreaded sea till it is late in the season, it is common for them to anchor in them all, one after the other, as they venture to creep down the coast, till they succeed at last in completing a passage to *Constantinople*, three months, and even more, after they have first started from their loading port of *Odessa*, the *Danube*." &c.—*Captain Middleton*.

AKTEBOLI. *Cape Rézvéh* is six miles to the N. by W. $\frac{1}{4}$ W. (*N. $\frac{1}{4}$ W.*) of *Cape Kouri*, and at 7 miles farther on, in nearly the same direction, is *Akteboli*, situated near the *Mountains of Babia*, which are one of the principal landfalls between *Sizopoli* and the *Bosphorus*. The coast is here bordered by yellowish cliffs. To the southward of *Akteboli* there is a *small haven*, the entrance of which, contracted by *rocks*, is not more than a cable's length broad; and within it there is a depth of 6 or 7 fathoms. On the larboard side in entering is a little convent, dedicated to *St. John the Baptist*. Latitude $42^{\circ} 4' N.$, longitude $27^{\circ} 59' E.$

At 16 miles N. W. by N. (*N. N. W.*) from *Akteboli* is *Cape Zaitan*. The coast between is low and sandy, and 7 miles N. W. by W. (*N. W.*) from *Akteboli* is the *Village of Vassicos*, which has a beach, and a small creek which admits only boats.

GULF OF BOURGAS. *Cape Emonéh* on the north, and the *Town of Sizopoli* on the south, forms what is generally designated the *Gulf of Bourgas*. These two points bear from each other N. E. by N. (*N. E.*) and S. W. by S. (*S. W.*) distant 17 miles. *Cape Emonéh*, or *Emona*, which terminates the chain of mountains called the *Balkan*, is high, and remarkable from sea, being surrounded by comparatively low land, not visible at a distance.

The *Gulf of Bourgas* is open to the east. On its north side, at $6\frac{1}{2}$ miles westward of *Cape Emonéh*, is *Messemvria*, built on a small peninsula, surrounded with cliffs, and having communication with the main land by means of a narrow isthmus, over which the sea sometimes breaks. The little bay to the west of the town has a good bottom, with 7 to 10 fathoms water; but that to the east of the town is not to be recommended, as the bottom is rocky and foul.

ANKHIALOU, OR HIALOU. This town stands on a projecting point, at 6 miles S. S. W. $\frac{1}{4}$ W. (*S. W. $\frac{1}{4}$ S.*) from *Messemvria*. Between these two points is the *Bay of Raveda*. South and S. W. winds are most prevalent here, but they cause no great risk. A reef of rocks, about 4 cables' length broad, runs out from the *Point of Ankhialou* for about 600 fathoms. Westward of the point are two large coves, the first of which serves as the roadstead of the town; they are both open to the south and east, as is also the case in the one that follows, and which terminates at *Bourgas*. Vessels anchor here in from 15 to 7 fathoms.

Bourgas, situated at 9 miles westward from *Ankhialou*, is built on a promontory of moderate elevation, between two salt-lakes, which are only separated from the sea by small bars of sand. A shoal extends out about four cables' length to the S. E. by E. (*S. E.*) from the town. The anchorage is to the south of it, in 5 and 12 fathoms water, good ground, and though open to the east, it is extremely safe. The *Port of Foros*, to the south of *Bourgas*, would afford even better shelter, was it not so shallow, as within it in some places are only 6 feet water, diminishing towards the shore.

The *Bay of Tchingheneh Iskelesi* (Gipsey's Wharf) situated to the east of *Foros*, is a place nearly deserted, open to the north winds, which, however, do not cause any great risk. It is about 3 miles broad at the entrance, and $2\frac{1}{4}$ miles deep, with from 5 to 10 fathoms water in it. Here it is that the greater number of vessels come, which during the winter are, on account of the *Port of Odessa* being frozen up, obliged to put into some port on the coast of *Roumelia*. Off the eastern point of this bay lies the island of *St. Anastatius*, the channel between which and the main is a quarter of a mile broad, and has a depth of 8 or 9 fathoms water in it.

Between the *Bay of Tchingheneh Iskelesi* and the *Port of Sizopoli* there are three havens, all forming pretty good harbours: the first two are sheltered from the East, and even from the N. E., but the points of land which separate them are edged with rocks.

The *Town of Sizopoli* lies about 9 miles S. E. (*S. E. by S.*) from *Bourgas*. The bay, which is on the western side of the town, is semicircular, being one and two-thirds of a mile broad, and one and a quarter deep. The peninsula on which the town of *Sizopoli* is built forms the eastern boundary, and *Cape Trinity* the western. An islet called *Kinos*, or *Elias*, a quarter of a mile northward of the first point, and three-quarters of a mile East (*E. by S.*) from the second, forms two passages to enter the harbour with; in the easternmost of which there are 6 or 8 fathoms water, and in the westernmost from 10 to 13 fathoms. On the eastern side of this islet there are two rocks above water; and on the western side there are breakers, which however do not extend far out.

Another islet, called *St. John*, lies about 100 fathoms west of the town, the passage inside which, about a cable's length across, is choked up by a shoal, which runs out to about $1\frac{1}{4}$ cable's length to the S. W. by S. (*S. W.*) of the islet; forming altogether an

excellent shelter from the sea-breezes, to those vessels that can anchor in from 5 to 3 fathoms, at the bottom of the bay, and on the west of the isthmus, where there is a well of good water, which may be seen at some distance from shore. You may also anchor between the *Town of Sizopoli* and *Cape Trinity* in 9 or 10 fathoms water; but here the bottom is not good, and vessels are exposed to northerly winds. Latitude of *Sizopoli* $42^{\circ} 26' 0''$ N., longitude $27^{\circ} 41' 25''$ E.

VARNA. *Cape Galata*, the southern point of the *Bay of Varna*, is in latitude $43^{\circ} 10'$ N., and longitude $27^{\circ} 58'$ E. *Cape Sangalik*, the northern point, bears from the former N. E. $\frac{1}{2}$ N. (N. E. $\frac{1}{4}$ E.) about $4\frac{1}{2}$ miles distant. Between them lies the bay, which is about 3 miles deep. The town is situated at the bottom of the bay; south of it the water is shoal, and, on account of some rocks, lost anchors, and wrecked vessels, it is dangerous to approach within a quarter of a mile of the town. Farther on, the shore, which is low, is bordered by a shoal. The common place of anchorage is to the S. E., between the town and *Cape Galata*, in about 8 fathoms water, open from the East to S. S. E. A small reef runs out from *Cape Galata*, around which there are 5 and 6 fathoms water. The opposite shore towards *Cape Sangalik* is bold and safe, with 6 and 8 fathoms water near it.

To the west of *Varna* is the *Lake of Deono*, from which several rivulets, traversing a considerable plain, run into the sea close under the walls of the town. *Varna* exports a good quantity of grain, flour, butter, tallow, wood, charcoal, and poultry to *Constantinople*.

BAY OF KAVARNA. *Cape Kaliakri* forms the eastern extremity of the *Bay of Kavarna*, and bears from *Cape Sangalik* E. N. E. (E. by N.) distant 20 miles. The bay thus formed affords good anchorage all over, when the cape first named is brought to bear East (E. by S. a little southerly). The cape itself is not very high, but is very steep, and of a red colour; seen from the east, it appears to be separated from the main land. On its summit are some old ruins; and you may double the cape at the distance of a cable's length.

Within the bay are the anchoring places of the *Towns of Kavarna* and *Baltchik*, the former situated about four miles north-westward from the cape. Here the town will be seen standing in a valley, between two high cliffs, situated about 2 miles up the country. *Baltchik* is situated about 9 miles farther west. At both these places poultry and firewood may be had at a very cheap rate.

In 1829 an Austrian merchantman, employed in the Russian transport service, was wrecked on a bank, hitherto unknown, between *Baltchik* and *Cape Sangalik*, the centre of which bears from *Cape Kaliakri* W. by S. $\frac{1}{4}$ S. (W. $\frac{1}{4}$ S.) distant 15 miles; from *Baltchik* S. S. W. (S. W. by S.) 6 miles; and from *Cape Sangalik* N. E. (N. E. by E.) This bank has only 10 feet water over it, and is situated to the east of a low beach overtopped by a mountain, on which are two hillocks; it appears to be about three-quarters of a mile from the shore, is of some extent, with deep water all around.

CHABLER SAGHI bears from *Cape Kaliakri* about N. E. by N. (N. E.) distant 12 miles. On approaching this point you will discover a hill, near to which is a tower of a pyramidal form, formerly used as a lighthouse. The point on which it is built runs out to the east, and a shoal extends from it to about a cable's length in the same direction.

Between *Chabler Saghi* and *Cape Kaliakri* the coast is clean. The cliffs are generally even, and here and there are a few houses, and in one place a small wood. A counter current has sometimes been observed here setting to the northward.

CAPE TOUZLA. About 24 miles to the northward of *Point Chabler Saghi* is *Cape Touzla*, in latitude $43^{\circ} 56'$ N. This cape is of moderate height, flat and steep; but it is surrounded by rocks, and therefore should not be approached within the distance of 4 miles.

At 8 miles S. W. by S. (S. W.) from *Cape Touzla* is *Mangkalia*, a small town, which may be known by seven small hills, toward which you must steer. There is anchorage off the town at about a mile from the shore, in 6 fathoms water, sandy bottom. Care should be taken not to go too near an old mole, which is surrounded with rocks.

Between *Cape Touzla* and *Mangkalia* is a wood, before which there is a single tree, which, in thick weather, bears some resemblance to the old lighthouse tower on *Point Chabler Saghi*.

KUSTENDJE, or **KUSTUNDJI**, is a small town, 16 miles to the northward of *Cape Touzla*, situated upon a headland of the same name, and surrounded with walls. When you are about E. by N. (East) of *Kustendje*, you will descry a hill, and on nearing the place several others, of which two are towards the south. East of the town there is a

shoal, with little water on it, which runs about a mile into the sea. From the S. W. extremity of the headland there is a *ruined mole*, which projects about a cable's length to the westward. Small vessels can anchor to the N. W. by W. (*N. W.*) of this mole, sheltered from the E. S. E., in from 15 to 5 feet water; but vessels of a larger size must anchor at about two cables' length to the S. W. by S. (*S. W.*) of the town, in 16 or 18 feet water, sandy bottom, exposed to the wind from the N. E. to the S. S. E. There is no commerce carried on at this place, and it was only during the late war between the Turks and the Russians that it received any considerable number of vessels, which were laden with provisions for the use of the Russian army.

KARA KERMANE. This place is situated at 23 miles N. N. E. $\frac{1}{2}$ E. (*N. E. $\frac{1}{2}$ N.*) from *Cape Kustendje*, and is a village of some extent, defended by a *castle* and some round *towers*. The anchorage is nearly a league to the south of the village, there being some *shoals* about this place within that distance. The coast then trends eastward and northward, being all low and marshy, bordered with *shifting sands*, forming an extent of 20 leagues from south to north. In this space the several branches running through the low marshes form the estuary of the *River Danube*.

MOUTHS OF THE DANUBE. The *River Danube* empties itself into the sea by four different channels, or mouths; viz. that of *Kilia* to the north, and those of *Soulina*, *St. George*, and *Portitcheh*, in succession, to the south. These are separated from each other by several low islands covered with reeds and trees, which islands are often inundated, and whose shores in the *Black Sea* are bordered by shoals to the extent of two or three miles.

The greater part of the ships bound up the *Danube* enter it by the *Soulina Mouth*, because it is the deepest. For a Commander who goes up it for the first time, the best plan is to take his departure from *Serpent's Island*, (which we shall describe hereafter,) from whence he ought to steer W. by S. (*West*), the distance being 20 miles. In clear weather he will first see the mountains ahead which form part of *Beche-tepeh*, (five hills,) situated on the western side of the river; afterwards a wooden tower, in ruins, which may formerly have been a lighthouse, is seen to larboard;* near it to the westward there are several huts, and to the N. W., on the opposite side of the channel, there is a pretty large building.

The tower must be brought to bear West (*W. by N.*) without approaching too near the land; and then a W. N. W. (*N. W. by W.*) course must be held till the buoys on the shoals are seen: and if a pilot does not come aboard, which is often the case, the same course should be kept till you are about $1\frac{1}{2}$ mile from the north point, and then you may steer straight for the tower, and when you have the river well open, you can enter, observing always to keep on that side of the stream from which the wind blows.

There are, in general, 9 or 10 feet water on the bar of this channel, but in autumn, and more especially in spring, there are about 12 feet. After having passed the *bar*, the water gradually deepens, and near *Isakitcha* and *Keni*, there are even 76 feet.

In sailing up this branch of the river you pass *Touttche*, a Turkish town on the western shore, from whence, when bound for *Ismail*, (a Russian fortress situated on the north side of the river, before which the water is pretty deep,) you run in a northerly direction, and doubling the point of the *Ile Tchatal*, which divides the river into two branches, you take that branch which runs toward the N. E., and having the current favourable, and very strong, it is requisite to furl part of your sails. Having arrived at the place where the quarantine is performed, you moor the vessel to the stakes on shore.

Here you will see the *Russian Fortress of Ismail*, with its suburb, called *Toutchkov*, built a little lower down, or to the eastward, beyond the mouth of the *River Repeda*, which unites the *Lake Yalpourkhe* and *Kougourlai* with the *Danube*, into which it runs about $1\frac{1}{2}$ mile to the west, and serving for winter-quarters for the gun-boats, which, during the summer, are stationed along the two banks, and also for the merchantmen. *Ismail* is 70 miles from the *Soulina Mouth of the Danube*, and about 12 from *Touttche*.

Thirty-five miles west of *Ismail* is situated the *Town of Reni*, a little lower down than the confluence of the *Pruth* with the *Danube*. In proceeding to this place you must keep along the south side of the river from *Touttche*, as far as *Isakitcha*, from

* We are informed a new lighthouse is erecting on the *Soulina*, or *Turkish* bank of the river.—1838.

whence you will pass a number of windings, which run between the low islets on the south side of the river. This town, as well as *Ismail*, (both belonging to Russia,) exports a great quantity of wheat, maize, rye, butter, coarse wool, &c.

The Moldavian Town of *Galatz*, situated between the mouths of the *Pruth* and the *Sireth*, about 10 miles higher up than *Reni*, exports similar articles as the former towns, together with a quantity of spars, wax, hides, and also wine for *Odessa*.

The *Kilia Channel*, on account of its shallowness, and the number of banks and islets with which it is blocked up, is now abandoned. The Town of *Kilia* is about 17 miles from the sea; the latitude of the mouth is $45^{\circ} 27' N.$, and longitude $29^{\circ} 42' E.$

Between the *Souline* and *St. George's Channels* there are several hills, and a quantity of trees, which, appearing like ships under sail, are seen before you discover the shore. Toward the *St. George's* mouth the number of these increase, and the *Beche-tepeh Hills* are always in sight. This mouth is surrounded with shoals, and there is an islet in it, on which there are three huts; there are four other huts seen to the left, and after having passed to the northward of the islet, there is a group more numerous, which, however, are hidden by the reeds. Several vessels have been wrecked at 3 miles' distance at sea from this mouth.

The *Portitcheh Channel* forms the *Lake Razelme*, which is utterly impracticable to navigate.

Remarks on proceeding up the River. Having entered by the great or southern pass of the *Souline Channel*, you should endeavour to keep toward the windward shore; and if a vessel should get to the lee side of the river, a rope should instantly be got over to the other side, and the vessel hauled over to it, as it is impossible for a ship to advance in such circumstances. If it be necessary to haul the vessel up the river, a hawser should be made fast to the foremast head, and rove through an eye in another rope, which is to serve as a sort of bridle to bouse it down to the head-rails, and which is to be let go, when trees or weeds intervene, so as to let the other pass clear over them. At every turn of the river, the ship should not be suffered to near the points too much, as most of them are surrounded by shoal water. All places which are marshy and covered with reeds or trees, should also have a good berth given them for the same reason; but where the banks of the river are steep, there is no danger in nearing them.

It is dangerous to have the anchors a-cockbill, or fastened outside the vessel, either in proceeding up or down the river; they should be taken in, and a small stream-anchor or kedge only be permitted to hang from the bowsprit; for considerable damage might be done to the vessel by the anchors, should she run against the banks of the river; and as vessels never anchor in the *Danube*, the kedge may serve to hold a ship, while fastenings are being procured to the stakes on shore, and which all vessels should be provided with. An E. S. E. wind will take a vessel up to *Ismail* or *Galatz* without towing.

Between the third and fourth turn of the river, after having entered the *Souline Channel*, to the S. W. of the mouth of the little *River Papadia*, there is a shoal about 2 miles long, in the middle of the stream, forming two passages. There is another to the south of the point, which separates the *Souline* from the *St. George's Channel*, which should be left to the southward. A third shoal lies to the west of that point of the *Island Tchatal*, which is the second on the starboard side after leaving *Toulche*; and a fourth lies between *Isaktcha* and *Reni*, opposite the mouth of the little *River Venate*.

Returning down the river, the vessel should be kept in the still water along the shore as much as possible, as far as *Point Tchatal*; but farther down, if the wind be contrary, the sails may be kept shivering, and the vessel left to the current. The only danger in the *Danube* is a rock lying off the little *Point of Old Toulche*, to the east of the fortress, and at the foot of a hill. As the current runs right over it, a hawser should be got out to the opposite side of the river, to prevent the vessel being thrown on it. This rock is not so much to be feared by vessels going up the river, for whether they be under sail, or tracking, they always keep in toward the opposite shore.

We have been favoured with the following observations on the entrances and navigation of the *River Danube*, from the journal of an intelligent Master in the merchant service.

"It is not advisable for a stranger to run in for the *Souline Mouth*, in rough weather, from the sea, without a pilot,—1st. Because the bar, and the shoals in its

vicinity, are apt to shift, so that what was, in the spring of the year, the best channel, may, in the fall, be very shallow.

"2nd. Because it cannot be depended upon, that the *buoys* which are placed, one on each side of the *bar*, will be at their proper places; for they are so badly moored, that they often shift, and even sometimes break adrift, as was the case when I ran in during a strong gale from E. N. E. in April, 1838.

"3rd. Because the depth of water over the bar varies much, according to circumstances, there being from 12 to 9 feet, which endangers a vessel whose master or pilot is unacquainted with the depth at the time she is running in. However, it is considered safest to run in, during a moderate breeze, with a loaded ship, parallel with the shore, as there is generally at that period more water caused by the meeting of the stream and the sea; as also the bar, being composed of soft sand, is, during such periods, so stirred up by the counter motion of the waters, that a vessel with a press of canvass cannot have any damage, supposing she was to drag on the ground without stopping.

"4th. Because the land is so low, that it is impossible to discern the entrance, without being quite close, or at about 2 miles from the shore, and should a vessel fall in on either side, she would find it difficult to beat out again, the water being very shallow.

"5th. Because there is no discernible object to mark out the entrance; the *houses* which are spoken of are very low, and as for the *ruins* of a *lighthouse*, I could see nothing of the kind; there is, however, *one now building* on the *Soulina*, or *Turkish bank* of the river, which will be a good mark both by day and night: there is a *small windmill*, which, with the masts of the ships, (which are always lying here wind-bound, on either side,) are the best marks for knowing it; there is also a cluster of trees about 4 miles to the northward, which are visible long before the land.

"In moderate weather the pilot-boat goes over the bar to bring vessels in, but in rough weather remains inside, waving a flag on a pole in the direction a ship should keep, which is generally only visible when out of danger.

"Masters of vessels, on arriving off *Soulina*, must send their boat to the guard-ship, and there produce their bill of health, which is immediately returned, and you are allowed to proceed up the river without further delay.

"In the spring of the year, even to the month of July, the freshes of this great river run down very strong, and the water overflowing the banks, renders it difficult tracking ships up when the wind is not fair, so that it is very frequently the case vessels are three and four weeks, or even more, getting up to *Galatz* and *Brailov*;* during the season, from July to November, the current diminishes as the water falls, which is then about 8 feet lower than in the spring, therefore the best time to navigate this river is during the autumnal months. The ice generally sets in at the beginning of December, and again breaks up about March. Fevers and agues are very prevalent in the summer months, with swarms of musquitoes, which are so very annoying, that millers are often laid up by them.

"The navigation of the *Danube*, upwards, to *Galatz* and *Brailov*, is generally safe, and can be performed without a pilot, but should a stranger require one, there are always plenty in readiness at *Soulina*; but it should be understood, that there are no regular branch pilots on this stream, being, for the most part, Greek sailors, some of whom are very ignorant in the management of a ship. The many windings of the river are laid down pretty correct on the new Chart of the Black Sea, as also those parts marked shallow, which are to leeward of the points that the current or fresh strikes upon running down; in passing which the lead should be used, keeping as close to the bank or shore as the draught of water the vessel draws will allow, to avoid the strength of the current.

"There is an extensive shoal, called *Argagna*, 5 miles below the *St. George's* branch of the *Danube*, stretching across the river, with only 9 feet water at times over its deepest part; but it is only dangerous to vessels coming down deeply laden.

"On approaching the *Turkish Town* of *Toultche*, keep over on the *Russian* side, until abreast of the *rocky point*, and close to the two houses on the *Russian* side; then stand off a little whilst passing the *point*, which is shallow, keeping the lead going when rounding it; then haul up again, and keep the *Russian* side aboard for a few miles till near the entrance of the *Kilia*, or *Ismail* branch.

* At other seasons this passage may be made in 5 or 6 days.

"The rocky *Point of Toulche* projects outside about 80 yards, off which lies a dangerous ledge of uneven sharp rocks, extending about 40 yards under water, steep-to; over the shoalest part of which, in the spring of the year, are from 3 to 5 feet water, and in the fall is that much above; round this rock is the greatest depth in the *Danube*, being from 12 to 15 fathoms, hard rocky ground, so that anchors are of no use, and seldom hold when approaching the rock on the *Toulche* side, and vessels striking on it generally go down in a very short time. This part of the river being very short, and winding with the direction of the current, renders it very difficult to pass this place.

"On the 27th June, 1838, I had the misfortune to be wrecked on the above rock; the water was then very high; the vessel being loaded with tallow, remained on part of the rock, and is the only one remembered there to have remained on it:—it seems rather strange to people unacquainted, that vessels should be wrecked in a place that appears so safe; however, it is quite the reverse. The day before this misfortune befel us, a Greek brig struck close to the rock, and immediately sunk; another, a fortnight after, just cleared it, and took the ground, but was hauled off without much damage; three others, whilst I was there, were very near going on it. These disasters are generally attributable to the reach being so short, the water so deep, and other unknown casualties, which cause the current to be very strong and irregular, whirling round furiously, so that vessels passing at these times become quite unmanageable, unless having a good way on them; so that it is advisable to wait, with loaded ships coming down, till a favourable opportunity offers for passing it.

"Vessels dropping down often injure their rudders against the banks on either side of the river, especially when the water is highest; and most vessels, to avoid that, have a large spar lashed on either side, the stoutest end projecting several feet beyond the stern, and which is very useful when the water is low, so that the ends of the spars catch the bank, and bear the vessel off without injury.

"Vessels, on entering the *Danube*, should be provided with a large wooden mallet, and several wooden stakes, from 4 to 5 feet long, (which should be kept in readiness in a boat,) to drive in on shore when required, in order to make fast to, when unable to proceed further; and it is further advisable to hire a few men at *Constantinople* for the purpose of tracking and navigating the ship up this river; for those who are used to come up always take extra hands, and *Soulina* is not a place to get any, (as I have seen it mentioned, at a cheap rate); besides, they may also be useful while loading during quarantine in any of the ports.

"The depth of water over the bar from March, 1838, to the beginning of June, was from 14 to 10 feet English; and from June to the latter end of August, 10 to 9 feet, while over the *Argagna Shoul* 14 and 16 feet, which is generally the case; when the water is shallow over the bar, it is deep there."

FIDONISI, or SERPENT'S ISLAND, is situated at 20 miles east from the *Soulina* mouth of the *Danube*. It is nearly square, and about 320 fathoms in extent, and 20 fathoms high. Its shores, which are steep and rocky, offer only three accessible points; but vessels may anchor off either side of it, the depth of water varying from 11 to 3 fathoms, with a bottom of mud and shells, at about half a mile from the coast. This island appears, from a distance, to describe an arc on the horizon; it is covered with bushes, and on its summit there is a large well, at a small distance from which the foundations of walls of very ancient construction are to be seen.

RIVER DNIESTER. At 18 leagues N. by E. $\frac{1}{4}$ E. (*N. N. E. $\frac{1}{4}$ E.*) from *Fidonisi*, and 17 leagues N. E. $\frac{1}{4}$ N. (*N. E. $\frac{1}{4}$ E.*) from the *Kilia Pass*, is the southern mouth of the *Dniester*. Its northern mouth is two miles distant from the southern, and between which is a narrow and low islet. The coast between the *Danube* and the *Dniester* is low, bordered with a sandy beach, with trees that may be seen 5 or 6 miles off, before the shore is visible; inland there are some extensive lagoons.

Two sandy points, one running to the S. W. by S. (*S. W.*) and the other to the N. E. by N. (*N. E.*) together with the low islet, form the two passages, of which the northern is called the *Passage of Otchakon*, and the southern one the *Passage of Tsarigrude*, or *Constantinople*. The latter is the most frequented, because it has the greatest depth, the shallowest water on its bar being 7 feet, whilst on the bar of the northern passage there are only 4½ feet.

About 550 fathoms south of the islet, a bank runs out to the S. S. E. (*S. by E.*) opposite which another bank runs off from the south point to about 400 fathoms,

thus forming the *Constantinople Passage*. Between the outer extremities of these banks there is another bank of an oblong form, about 100 fathoms long, lying N. E. by E. (*E. N. E.*) and S. W. by W. (*W. S. W.*) forming two passages, which are about 85 fathoms broad. To enter the easternmost of these two passages, you must bring the south point of the islet to bear N. W. $\frac{1}{4}$ N. (*N. N. W. $\frac{3}{4}$ W.*), then steer right on for it, and having arrived near to it, steer to the W. N. W. (*N. W. by W.*) directly into the great passage, running through a depth of water of 22, 20, 17, 19, 23, 30, and 37 feet; this will take you into the *gulf*, where the water becomes gradually shallower. To enter the western passage, the *sandy point* of the main must be brought to bear N. by W. $\frac{1}{4}$ W. (*N. $\frac{1}{4}$ W.*), and the south point of the islet N. by W. nearly (*North a little Easterly*), then steer North (*N. by E.*), until the former point bears West (*W. by N.*), when you may steer, as before directed, through the great passage. The depth of water is nearly the same on both sides of the bank. There is a small hill on the highest part of the shore, about 3 miles to the west of the passage. Being inside, the course to be observed is N. by W. $\frac{1}{4}$ W. (*N. $\frac{1}{4}$ W.*), which will lead near to *Akkerman*. If bound to *Ovidiopol*, the same course is to be held, until that town is seen behind *Cape Starvi-goroditche*, situated near a ravine, and to the south of the fortress of the same name.

The *Gulf of Dniester* is 22 miles in extent from its entrance to the mouth of the river. In the broadest part, to the north of *Akkerman*, it is 6 miles across, but between that town and *Starvi-goroditche*, it is only $2\frac{1}{4}$ miles across. There is a deposit of soil on both sides of the mouth of the river, which forms, on the eastern side, an *inlet*, that runs up 4 miles to the *Town of Gorogli*. In the little haven thus formed on the west side, there is deeper water than at the entrance of the *gulf*, probably on account of its being exposed to the current of the river, and of the *Rivulet Tarachuk*, which flows into the *gulf* close by. Inside the *River Dniester* there is a depth of 40 feet. *Akkerman* is situated 8 miles from the *Constantinople Passage*, and *Ovidiopol* at $10\frac{1}{2}$ miles' distance from the same. The distance between the two towns is $4\frac{1}{2}$ miles, and they bear from each other E. N. E. (*E. by N.*), and W. S. W. (*W. by S.*). *Akkerman* exports a great quantity of salt, which is drawn from the lakes round about it. Latitude of the *Constantinople Passage* $46^{\circ} 7' N.$, and longitude $30^{\circ} 30' E.$

ODESSA, in latitude $46^{\circ} 29' N.$, and longitude $30^{\circ} 43' E.$, now forms the great Russian trading port of the *Black Sea*. It possesses many advantages as a sea-port; for lying between the *Rivers Dniester* and *Dnieper*, it is well situated for commerce, and vessels can readily run into it for shelter against the storms which are so frequent to the southward. It has no river; but there are two moles, and a landing-place for barks; on the land-side of the great mole is the castle, and at its further end the *azaretto*. A row of barracks forms a line between the harbour and the town. A canal has been constructed, and several fountains made in the city, which furnish the inhabitants with a plentiful supply of good water; nothing, indeed, has been neglected to make *Odessa*, in all respects, equal to other great ports of the Russian empire. In 1817 it was declared to be a free port, and to this circumstance is principally to be attributed its present flourishing pre-eminence. The port is capable of holding 300 merchant vessels, and the bay is extensive, with a depth of water quite sufficient for the largest ships; the ground is generally fine sand, with, in some places, mud. The road, although open to easterly winds, which are prevalent throughout the winter season, is not generally considered unsafe. The principal article of exportation from *Odessa* is wheat; but a great quantity of other grain, of tallow, hides, hemp, flax, wax, and rope, is also exported.

ROUTE FROM CONSTANTINOPLE TO ODESSA. The true course is N. by E. $\frac{1}{4}$ E., or (*N. N. E. $\frac{1}{4}$ E.*, by compass). In this course you will pass 9 or 10 miles to the eastward of *Fidonisi*, or *Serpent's Island*; but it is much better to steer more to the east, towards the coast of the *Crimea*, for a fair wind seldom lasts long enough to carry a vessel up to *Odessa*, and the prevailing winds being from the N. E. quarter, the vessel being a good way to the eastward, may run up, whilst those that have kept close in with the coast of *Roumelia* are obliged to put into port, for, on account of the current which sets to the south, it is useless to keep beating about. If, on the contrary, the wind should come from the N. W. quarter; unless very westerly, it would still be impossible to make much, if any, progress, and that only by very long beating.

About 55 miles east of *Kustendje* there are about 40 fathoms water, which decreases, as you approach *Fidonisi*, to about 20 fathoms; the bottom of shells,

sometimes mixed with mud. Between the island and the *Danube* the soundings are from 53 to 42, and 18 fathoms, on a bottom of similar quality.

Having passed *Fidonisi Isle*, and steering the true course as above, the soundings decrease from 16 to 12 fathoms, bottom of mud and shells. In clear weather *Cape Balabane* may be perceived to the west, remarkable only on account of its being succeeded to the north by a low sandy shore, which is not seen. Between that and the *Dniester* are a few red cliffs to be seen here and there. To the S. E. of the *Dniester* the water becomes still more shallow, to 11 and 10 fathoms.

Opposite a ravine, called *Bariboi*, situated about 5 miles to the northward of the *Dniester*, there is a *shoal*, on which several vessels have struck; it is about a mile and a half from the land, and has over it from 2 to 3 fathoms water. Its length is about $2\frac{1}{2}$ miles, and it lies in the same direction as the coast. Farther north the coast becomes covered with houses and windmills; two other ravines are also seen; the first of which, called *Souk-hoi-liman* (Dry Lake,) is of considerable size, and resembles the bed of some ancient river.

CAPE FONTANE Lighthouse is situated about six leagues to the north-eastward from the northern mouth of the *Dniester*, and $6\frac{1}{2}$ miles to the southward of *Odessa*, in latitude $46^{\circ} 23' N.$, and exhibits a bright fixed light, the height of which is 203 feet above the level of the sea, and in clear weather may be seen at the distance of 19 miles.

On approaching *Odessa*, you will discover a windmill, built in the English manner, close to the castle, the steeples of the churches, and at last the ships at anchor in the roads and the mole; but the town itself is very little seen, it being situated on a level piece of ground, and stretching inland. From the roads the boulevards, the exchange, the theatre, and the governor's house are to be seen, built on the brow of the cliffs. The whole coast between *Cape Fontane* and *Odessa* is safe, but the water not very deep, especially opposite the last point, where vessels are obliged to throw overboard their ballast, and by so doing have formed a bank, which runs about 2 cables' length from the shore, and continues as far as the end of the mole.

The Quarantine Mole is 288 fathoms long, and is curved to the N. W., thus affording shelter to vessels within it from the sea-winds; but still it is necessary to have good fenders over the vessel's sides, for the north wind causes considerable damage whenever it blows, to all those which are not thus provided. The deepest water in this mole is about $18\frac{1}{2}$ feet, and that in the two first tiers of vessels, beginning at the third berth from the mole, to about the seventh or eighth berth. Close to the mole there are only 10 and 12 feet water, and beyond the eighth berth and the third tier the water shoals gradually to 14, 12, 10, 9, 6, and 4 feet towards the shore. The mole is obliged to be cleaned out every year, on account of the ballast which the current brings up with it.

Vessels arriving at *Odessa*, and having to perform quarantine, cast anchor towards the N. E. of the mole, in about 35 or 40 feet water, bottom of mud and weeds; they can also run close in, to the north of the mole, into about 25 or 20 feet water, but it is not advisable, on account of the number of anchors that are lost there every year; and a vessel would run some danger of striking on them, should it come to blow hard, as the nasty short sea which runs in causes vessels to roll very heavy.

During the time of observation, which is generally eight days, the vessels continue in the roads; and as there sometimes happen some very heavy squalls of wind, and the short sea, peculiar to the place, being very dangerous, it is quite necessary to have both bower anchors ready to be let go, in case of emergency. Should both cables be parted, a boat employed by Government will bring out an anchor and cable, on a signal of distress being made. Ships not in quarantine, anchor about a mile farther up the bay. The roads are open to all winds from N. E. round East to the S. E., and the E. N. E. blowing directly in, is the most dangerous.

At 331 fathoms from the Quarantine Mole is a jetty 71 fathoms long, which runs out in a N. N. E. (*N. E. by N.*) direction, and is used entirely for the loading of lighters which bring off the cargoes to the vessels in quarantine. At 498 fathoms more to the westward is situated the *Pratique Mole*, called also the *Crown Mole*; it is nearly in the same form as the Quarantine Mole, and is 206 fathoms long. At its extremity there are 10 and 12 feet water, which then shoals off toward the shore, and here a broad sand-bank begins, which circumscribes the whole northern and western coast of the bay.

ODESSA TO OTCHAKOV, NICOLAIEV, AND KHERSON. From the

northern point of the *Bay of Odessa* the coast runs E. N. E. $\frac{1}{2}$ N. (*E. by N. $\frac{1}{2}$ N.*) thence turning E. S. E. (*S. E. by E.*), forming a slender bay, the extreme points of which bear E. $\frac{3}{4}$ N. (*E. $\frac{1}{4}$ S.*) and W. $\frac{3}{4}$ S. (*W. $\frac{1}{4}$ N.*), distant 22 miles from each other. Between them the shore is clean, and the water shoals gradually. The coast is not very high, but steep and of a reddish colour; but a few lakes, separated from the sea by small bars of sand, some rivulets and ravines, break the uniformity of this part of the coast.

At 29 miles to the E. by N. $\frac{1}{2}$ N. (*E. $\frac{1}{4}$ N.*) from *Odessa*, at the mouth of the *Lake Berezane*, lies the little *Island of Berezane*, which is surrounded with red cliffs. A reef of rocks, about a mile and a half long, runs off the south point of it. The passage between the island and the main is choked up with a shoal, which prevents vessels from passing; and on the east side of it there are no more than 20 feet water at half a mile from the shore, though to the westward of it there is a good road, where large vessels may anchor.

OTCHAKOV is about two leagues eastward of *Berezane Island*. Here stands the *Castle of St. Nicholas*, on a low point, which forms the *Port of Otchakov*, now only considered as a point commanding the navigation of the *Rivers Boug and Dnieper*, and as a place affording convenient and safe anchorage. The entrance to the *Gulf of the Dnieper*, between *Otchakov* and the opposite point of *Kilbouroun*, is only two miles wide, and the navigable channel is contracted by a bar of sand about two-thirds over; but inside the gulf widens to full six miles.

The southern coast of the *Gulf of Dnieper*, towards the entrance, is low and sandy. It is terminated to the west by the *Point of Kilbouroun*, from which a shoal spit extends from it a mile to the north, and at the extremity of which is stationed a floating light, which may be distinguished about 3 miles distant. From the west of *Kilbouroun* a long bank of sand stretches away to the west, to within about 8 miles of *Odessa*. The depths on its south side gradually diminish from 7 to 6 and $4\frac{1}{2}$ fathoms, and off the northern edge there are 10 and 12 fathoms. With the *Isle Berezane* bearing N. by E. (*N. N. E.*) you may cross it in $4\frac{1}{2}$ fathoms. This sandy tract would seem to forbode, at some future time, a prolongation of the land about the south side of the *Dnieper*.

The *Light Vessel* is so situated that its position may be ascertained by three pairs of beacons erected on the shores and the *Island Berezane*. Those on the island form the western mark, and in a line bear W. $\frac{1}{4}$ N. (*W. N. W. $\frac{3}{4}$ W.*) distant 3 miles; the northern are to the west of *Otchakov*, and bear N. $\frac{3}{4}$ E. (*N. by E. $\frac{3}{4}$ E.*) 2 miles; and the S. E. bear S. E. by E. (*S. E.*) $5\frac{1}{2}$ miles. This latter pair also point out the direction of the deepest water between the sand-spits which contract this channel.

In proceeding towards *Otchakov*, after rounding the south point of *Berezane Isle*, which should be done at the distance of more than a mile, or not less than to 20 feet water, though to the southward there are 8 and 9 fathoms, continue until you bring the beacons on *Berezane* in one (as above described); steer thus till you get the two northern beacons in one, and the two others on the coast of *Kilbouroun* in one to the S. E. by E. (*S. E.*), where you will be opposite the entrance of the *Gulf or Lake of Dnieper*, in 45 feet water.

From this position, which is where the *light-vessel* is stationed, you proceed with the beacons on the *Kilbouroun* shore bearing S. E. by E. (*S. E.*) through the main channel into the *Dnieper*, with a depth of water from 13 and 12 to 10 fathoms, till *Point Kilbouroun* is brought to bear West (*W. by N.*); then, turning away by degrees as far as E. N. E. (*E. by N.*) the depths diminish from 8 to 3 fathoms; and, lastly, when the *Point of Otchakov* is brought to bear W. by N. (*W. N. W.*), take an East (*E. by S.*) course, and in this direction you will have from 4 to 3 fathoms; but in deviating from it you will fall into 14 feet water. In the interior of the gulf, the north shore can be approached much nearer than the south.

About $3\frac{1}{2}$ miles before you come to the mouth of the *River Boug*, a sandy point, surrounded by a bank, runs out to about a mile to the south. Being abreast of this point, bear away E. by S. (*S. E. S. E.*) which will carry you to the passage of *Point Stanislaw*, which having cleared, turn to the N. E. by N. (*N. E.*) and proceed to *Gloubok*. At this place vessels which draw too much water for entering the river, discharge part of their cargoes, and fill up upon their return; and even here there are no more than 10 feet water at a good cable's length from the shore.

About 4 miles E. S. E. (*S. E. by E.*) from *Gloubok*, 32 miles from *Otchakov*, and $1\frac{1}{2}$ from *Kherson*, is the principal mouth of the *Dnieper*. It is pointed out by *Cape Kizime*, which is reddish, and gives name to this mouth of the river. Here there are

about 7 feet water, and the shoals are marked off by buoys: farther up a considerable number of islets, covered with reeds, form a navigation difficult to pass. To proceed to *Kherson* by this branch, always take the broadest channel to the larboard, and you will have from 25 to 37 feet water.

KHERSON is built on the north bank of the *River Dnieper*, which is there about 2 miles broad and 50 feet deep. This place is the mart for divers productions of the Russian empire, which are brought down the river, and are from thence transported to *Odessa*, &c. by the coasting vessels, which are very active. The city is defended by a fortress, and generally contains a numerous garrison; there was formerly a dock, where men of war were built, but since *Odessa* has come into repute, the establishment has been transferred thither.

The *Dnieper* is generally frozen over for two months every year, beginning from the 1st to the 15th December, to the 10th or 20th February. Sometimes a strong south wind will break the ice up during this interval, but with the returning north wind it again becomes frozen over.

THE RIVER BOUG runs into the *Gulf of the Dnieper* at about 16 miles east of *Otchakov*. This river, at its mouth, is three miles in breadth, and has a depth of $3\frac{1}{2}$ fathoms. In proceeding up, the river takes a circuitous form, and its shores are bordered with shoals, especially the eastern side, where they stretch out more than the middle of the stream. The *City of Nicolaiev* is situated on the eastern bank, at 20 miles from the entrance, at its confluence with the *River Ingool*. The depths of the river, as far as *Nicolaiev*, vary from 20 to 60 feet. Here men of war are built and launched into the *Ingool*, from which they pass into the *Boug* by a channel from 20 to 27 feet deep. In the opening to the N.W. of the town is the observatory, established in the year 1820, the latitude of which is $46^{\circ} 58' 55''$ N., and longitude $32^{\circ} 0' 21''$ E.

We now return to the coast south of *Kilbouroun* and the *Isle of Tendra*. The north point of *Tendra Isle* bears from *Point Kilbouroun* about S. $\frac{1}{4}$ E. (S. $\frac{3}{4}$ W.) distant $12\frac{1}{2}$ miles; and the coast, from the same point, continues low and sandy in the direction of S. by W. $\frac{3}{4}$ W. (S. W. by S. $\frac{1}{4}$ S.) together with the little low *Islet of Dolgoi*, to the distance of 14 miles; it then takes a circuitous route round to the point opposite *Dolgoi Isle*, which are about 5 miles apart, thus forming the bay called the *Gulf of Kilbouroun*, where there is plenty of room for small vessels, sheltered from the N. W. and northerly winds, in from 18 to 9 feet water, bottom of mud and sand, at two miles eastward from the low islet before noticed.

THE ISLE OF TENDRA is composed of low, narrow, sandy land, similar to the opposite coast to the east, turning round South to the E. S. E. to the distance of 9 leagues. Two small channels, or breaks, about 120 fathoms broad, towards the east, separate it from the main-land.

To the east of the north point of *Tendra* there is good anchoring ground in from 40 to 30 feet water, bottom of mud and sand, and entirely sheltered from the winds between south and west, as far as W. N. W., but the N. N. W. winds blow directly into it.

Tendra Lighthouse, which exhibits a revolving light, is situated $2\frac{1}{2}$ miles from the northern point, and is in latitude $46^{\circ} 18' 54''$ N., and longitude $31^{\circ} 29' 30''$ E. The light was first exhibited on the 15th of September, 1827, and is 92 feet above the level of the sea; the apparatus performs a complete revolution in four minutes, so that the light appears in full lustre once in a minute and 40 seconds. This light may be seen, in clear weather, at the distance of 16 miles, and a bell or gong is sounded in thick and snowy weather. There are also three beacons constructed on this isle; these are painted red, and are respectively $52\frac{1}{2}$ feet in height. The first is placed on the northern point of the isle, and has a head formed thus $\blacktriangle$; the second, about $10\frac{1}{2}$ miles more to the S. E. almost in the middle of the isle, has its head like the letter ∇ ; and the third, about 17 miles farther to the E. S. E. and near the east end of the isle, is surmounted by three cross bars, thus $\equiv$.

The bearing and distance from *Tendra Isle Lighthouse* to *Cape Escliforos*, or *Tarkhan*, are S. E. $\frac{3}{4}$ S. (S. S. E. $\frac{1}{4}$ E.) 72 miles, between which, the coasts run a considerable way to the eastward, thus forming the *Gulf of Kerkinet*.

GULF OF KERKINET. On the north side of the gulf is the long sandy peninsula, called *Djarilagatche*, commencing about 19 miles from *Tendra Isle*, where it is only 100 fathoms across, and extends to the E. by S. (E. S. E.) about $6\frac{1}{2}$ leagues. It increases gradually towards the east, where its broadest part is about 2 miles; and in rough weather the sea sometimes makes a fair breach over it at its narrowest part,

so that in thick weather great caution is requisite in nearing it. It appears that year after year this peninsula has been growing longer; within it there is an extensive harbour, entering from the east, where it is 4 miles broad, in which there is a depth of $4\frac{1}{2}$, 4, and 3 fathoms.

At about 4 or 5 miles from the land, on the south side of *Djarilagatche*, along the whole extent of this coast to the west, as far as the extremity of *Tendra*, there are from 10 to 7 fathoms water, over a bottom of sand and shells, which decreases gradually. Hereabout the lead should be kept constantly going, and no dependence placed on seeing the land, which is extremely low, and not visible at more than three or four miles' distance. Beyond the longitude of $31^{\circ} 20'$, towards *Cape Eskiforos* and *Tendra*, the quality of the bottom is of *broken shells*, which appear as if mixed with lime; whereas to the west, towards the coast of *Bessarabia*, it is of *shells and mud*. This distinction is extremely useful to vessels approaching this part in thick hazy weather, with variable winds, which happen very often in these parts.

From the east end of *Djarilagatche* to the opposite shore, on a S. E. (*S. E. by S.*) bearing, are the *Point* and *Bank* of *Sariboulatski*, extending northward about 7 miles, and beyond which, towards *Perecop*, at the N. E. part of the gulf, the water becomes shallow, there being no more than 3 fathoms on the eastern side of the point, and 4 towards *Djarilagatche*, while nearer *Perecop* there is still less water.

At 27 miles S. W. $\frac{1}{2}$ W. (*W. S. W. $\frac{1}{2}$ S.*) from *Point Sariboulatski*, and 14 miles to north-eastward of *Cape Karamroune*, is the small *Harbour of Ak-metchet*, having a reef on each side of its entrance. The bay is $1\frac{1}{2}$ mile deep, and 300 fathoms broad at the entrance. To enter, you must bring some houses, which will be seen on a height at the bottom of the harbour, to bear S. $\frac{3}{4}$ E. (*S. $\frac{1}{2}$ W.*); then steer directly for them, and cast anchor in from $7\frac{1}{2}$ to 3 fathoms water, on a muddy bottom; but this place is exposed to the northerly winds.

CAPE ESKIFOROS, or TARKHAN, bears S. by E. $\frac{1}{2}$ E. (*S. $\frac{1}{2}$ E.*) distant about 1 miles from *Cape Karamroune*, between which the coast curves in, and forms a small haven before the valley *Karadji*, to the N. E. Vessels cast anchor there in $5\frac{1}{2}$ fathoms, in a bottom of mud and gravel, but exposed to the winds from the west.

The lighthouse on *Cape Eskiforos* exhibits a *bright fixed light*, which is visible from all points between (*S. by E., by the West to the N. by W.*) and in clear weather may be seen at the distance of 17 miles. Latitude $45^{\circ} 20' 42''$ N. and longitude $32^{\circ} 29' 23''$ E. To the west of the Cape a reef of rocks, 5 miles long, and $2\frac{1}{2}$ broad, extends out from the shore; and at 4 miles distant from the land it is separated into two parts, with a channel between them, so that small vessels acquainted with it can pass through. Near the edges of the reef, and about the Cape, there are from 20 to 22 fathoms.

From *Cape Eskiforos* the coast turns to the E. by S. $\frac{1}{2}$ S. (*S. E. by E. $\frac{1}{2}$ E.*) 7 miles, to *Cape Ourel*, the latter being bordered by a small reef; it then trends towards the east for 9 miles, where the elevated shore ceases, and may easily be distinguished by the white rocks which surround it. Hence the sandy shore again commences, and runs S. E. by E. (*S. E.*) for about 22 miles, when we arrive at *Koslov Point*; but the water is deep at a short distance from the shore, sufficiently for large vessels to navigate with safety. From *Koslov Point* the coast again turns east round southerly, continuing low and sandy for about 27 miles, when it makes a short turn westerly to *Cape Loukoul*, where the coast again becomes elevated. This last Cape to the south, with *Cape Koslov* to the north, forms the two points of the bay bearing the Greek name of *Kalmatia*, at the N. W. part of which is situated the Town of *Euphatoria*, or *Koslov*. In this bay the shore is quite clean, and the water continues deep.

EUPHATORIA, or KOSLOV. In sailing towards *Euphatoria* from the south, having passed *Sevastopol*, it may be observed, that the coast takes a northerly direction, and is bordered by red cliffs for the space of about 13 miles, as far as *Cape Loukoul*, before mentioned. After having sighted the land about *Cape Kherson*, and run 35 miles N. by E. (*N. N. E.*) over a depth of 50, 45, 30, 19, and 11 fathoms water progressively, muddy bottom, you come into the Road of *Euphatoria*, where caution should be used not to approach the point on which the lazaretto stands, within three cables' length, on account of a spit of sand, which extends S. E. by E. (*S. E.*) for about 350 fathoms, and may be known by the water changing colour on it. The winds generally blow very strong in these roads, and those from the south are very dangerous.

The low point of the lazaretto, and the shoal which extends from it, break the swell of the sea from the S. W., and afford shelter to those vessels which lie behind

them close in-shore, in about 3 fathoms water; farther out there are from 4 to 6 fathoms. Vessels moor in the roads with an anchor to the east and west, and if expecting to remain any length of time, they generally buoy up their cables. In coming into the road, *Mount Tchatur-dagh* will be seen to the S. E.

The principal articles of exportation from *Euphatoria* are wheat, barley, hides, those curly lamb-skins called *Astracan skins*, and salt, which is drawn from the lakes in the neighbourhood of this place.

CAPE KHERSON, OR CHERSONESSUS. The southern coast of the Crimea is terminated to the west by a small low peninsula, the extremity of which is called *Cape Kherson, or Chersonessus*. From this cape a reef runs out to the westward about three cables' length. A lighthouse, 170 feet high, stands on the point, and forms a conspicuous mark by day, and by night the light may be seen at the distance of 11 miles, in clear weather. This light is of a red colour, and revolves, being eclipsed for one minute in every four, and visible in the direction from true E. N. E. by West to S. E. by E. Latitude $44^{\circ} 34' 24''$ N., longitude $33^{\circ} 21' 0''$ E.

From *Cape Kherson* to the *Harbour of Sevastopol* the distance is about 7 miles to the eastward. In this range of the coast there are several remarkable white cliffs, with several bays and inlets, of which three are in the great bay. They are all open to the north, and each of them deserves a particular description.

The first is named *Droinaia* (the double). In entering this place the shore on the right-hand side should have a good berth given it, on account of a spit which extends from it to the N. E. to about a quarter of a mile. There is another shoal, which runs out to the northward, about half a mile from the point, which divides the port into two. That part which is on the larboard side in entering is preferable to the other for anchoring, as the bottom is composed of mud and shells, while that of the other is of rocks. The depths in the former lessen gradually from 6 to 2 fathoms.

The second is called *Kozatchaia, or Kozak Bay*. It is separated from *Droinaia* by a headland, each having the same entrance. This is more than a mile and a half long, and the soundings in it are from 10 to 2 fathoms.

The third is named *Krougliaia, or Round Bay*, and is situated rather more than a mile from *Kozak Bay*. The water being very shallow in this harbour, vessels can only anchor in the mouth of it, in about 4 or 5 fathoms. A small island, surrounded by a shoal, occupies the middle of it.

The fourth, *Streletskaia*, is separated about a mile from the *Round Bay*. Between these places two banks extend from the shore to the north about 200 fathoms. *Streletskaia* is more than a mile deep, and there are several inlets in it. There is a bank on the eastern shore, about midway down, excepting which the bottom is muddy and good.

The fifth, called *Pestchannaia*, is a small sandy bay, open, and affording very bad anchoring ground.

The sixth is *Karantinaia, or the Quarantine Harbour*. This is a little port, irregularly formed, the windings of which shelter vessels on all sides, even from the north. The depths at the entrance are 7 and 8 fathoms, and within $5\frac{1}{2}$, $3\frac{1}{4}$, and 2 fathoms. Going in, the starboard side should have a good berth given it, on account of some breakers. Eastward of this harbour, two ledges of rocks form, with two others which extend to the opposite shore, the entrance to the *Great Bay, or Road of Sevastopol*. The first, which is called the *Bank of Alexander*, runs about 250 fathoms to the north, and the extremity of it is pointed out by a red flag, while the extremity of the corresponding ledge on the opposite shore, which lies to the west of the land, and called *Constantine's Reef*, is marked by a white flag. The distance between these signals is about 425 fathoms.

The seventh is *Antillerenskaia, or the Artillery Port*. It is about two-thirds of a mile from the preceding, and to enter it care must be taken to avoid a ledge of rocks which projects from its western side, about a cable's length to the northward. In this harbour there are 4 and 3 fathoms water very near the shore.

The eighth is called *Yougennaia, or the Southern Port*. A ledge of rocks extends out about $1\frac{1}{4}$ cable's length from the point which separates this port from that of the *Artillery*. The harbour is about $1\frac{1}{4}$ mile long; there are about 9 fathoms water at the entrance, diminishing progressively upwards to 7, 6, 4, and 2 fathoms; the shore is steep-to, so that ships of the line may lie close to the land. The town of *Sevastopol* is built between this and the *Artillery Port*; the arsenal is in the latter. To the left, on entering this *Southern Port*, there is a small haven, where the men of war are laid up in ordinary; this is called *Port Karabelnaia* (Man-of-war Port).

The *ninth*, or *Carcenage*, is an inlet, situated about a mile from the *South Port*.
ROAD OF SEVASTOPOL. The north shore of the *Great Road* presents nothing remarkable in it, except a small inlet, directly opposite the *Point of Sevastopol*, called *Port Severnaia*. From the extremity of this shore, the ledge of rocks, called *Constantine's Reef*, runs out about half a mile to the west, and about one-third of a mile broad, the extremity of which, as we have already noticed, is pointed out by a *white flag*. In entering the bay, after having passed this signal, you will see a point bordered by a small reef of rocks, which lies to the N. N. E. (*N. E. by N.*), distant about 330 fathoms from the *red flag* on the opposite side. The *Reef of Constantine* and point within are overlooked by the high table-land, on which there is a fortress.

The *Port of Sevastopol* is open towards the west; it is 4 miles long, and nearly one mile across in the broadest part, with a depth of 10 fathoms, in mid-channel, about half-way up, diminishing gradually to the eastward. At the head of it lies the *Valley of Inkermane*, through which the *Rivulet Bouiouk-ourzene* runs. Here two lighthouses have been constructed, which must be brought in a line, in order to pass safely the rocks which narrow the entrance of the bay. The nearest of these lighthouses is to be seen at 22 miles' distance, while the farthest, which is more elevated, may be seen at the distance of 27 miles.

During the summer the west wind blows all day, and the land-breeze all night; but in autumn and winter the winds are not so regular. *Sevastopol* has been much complained of, on account of the worms, which are very destructive here in piercing the ships' sides; and it is generally supposed that these insects are generated in the mud which several rivulets wash down into the sea, particularly at the bottom of the great bay.

THE SOUTHERN COAST OF THE CRIMEA. *Cape Kherson*, together with the lighthouse upon it, has been already noticed, page 296. Hence the coast runs about S. E. by E. (*S. E.*) for 7 miles to *Cape Fiolente*, or *Felenk*, which has a small bay to the eastward, where a monastery, dedicated to St. George, is situated. Here the coast becomes more elevated, the shore clean, and the water deep.

The entrance to the *Port of Balaklava*, five miles to the east of *Cape Fiolente*, situated in the midst of mountains and precipices, may be known by the tower on its eastern shore, which formerly served as a lighthouse, but which at present is never lighted, on account of there being no commerce to this place; and it would be impossible for vessels to enter the port by night if it were lighted. The entrance of the port is only of sufficient width to allow one vessel to pass at a time; and a good look-out should be kept to the wind, for sometimes it comes, quite unexpectedly, in violent gusts, from the interior of the harbour, and is liable to run vessels against the shore, where they will be in great danger. The harbour is of an oblong shape, running from north to south, sheltered from the wind on all sides, and surrounded by high mountains. The water is deep all over, and in some places there are 8 and 9 fathoms, muddy bottom. A small village, inhabited by Greeks, occupies the eastern side of the harbour. In order to prevent smuggling, this port is closed against vessels of all nations, and is only frequented by the coasting traders.

At six miles S. E. by S. (*S. S. E.*) from *Balaklava* is *Cape Aia*, remarkable for its height, steepness, and reddish colour; and four miles S. E. by E. (*S. E.*) from this lies *Cape Saritche*, the most southerly point in the *Crimea*, in latitude $42^{\circ} 23' N.$, and longitude $33^{\circ} 43' E.$ Between these two points is situated the *Roadstead of Lapsi*, which is open from the south to the west.

Cape Kerkines is situated 9 miles to the east of *Cape Saritche*, and is a low and rocky point: farther on the coast turns a little to the north to *Cape Aitodor*, which is six miles from *Cape Kerkines*.

The *ROAD OF YALTA* is four miles to the N. N. E. (*N. E. by N.*) from *Cape Aitodor*, which forms the S. W. side, while *Cape Nikita* forms the other. These *Capes* bear N. E. $\frac{1}{2}$ E. (*N. E. by E. $\frac{1}{2}$ E.*) and S. W. $\frac{1}{2}$ W. (*S. W. by W. $\frac{1}{2}$ W.*) from each other, distant eight miles. This road is frequented by those vessels which, going to *Theodosia*, or the *Strait of Kertche*, meet with a north-easterly wind, when they repair hither for shelter. There are 13 fathoms water at three-quarters of a mile from the shore, and close in to it there are 3 and 4 fathoms. A rivulet, that furnishes excellent water, runs into the sea, a little to the westward of the village, which is situated on the north side of the road. It is entirely open from the S. S. W. to the East.

The *ROAD OF OURZOUF* is on the other side of *Nikita*, about six miles N. E. by N. (*N. E.*) from *Yalta*. This place also offers anchorage to wind-bound vessels, though

it is inferior to the former. The anchorage is to the south of the village, about half a mile from the shore, in about 8 or 9 fathoms, bottom of mud and sand. On a rock to the N. E. are the ruins of an ancient *fort*, and in front of which are two insulated *rocks*, rising pretty high from the sea. *Ourzouf* may be distinguished from afar off by a beautiful country-seat situated there.

Cape Lioudagh, or *Bear Mountain*, forms the northern part of the *Road of Ourzouf*, and is about 4½ miles distant from *Cape Nikita*; although much lower than the chain of mountains within the coast, it is always remarkable, both on account of its form, and of its colour. Seen from sea, it has the appearance of an island, of which the surface forms an arc of a circle; but in coming either from the N. E. or South, keeping along shore, it is easy to perceive the form from which it has derived its name—namely, that of a bear lying down. Its shores are steep, and may be approached without danger, the water being deep all round. At the extremity the current at times runs very strong past it.

On the N. E. side of *Cape Lioudagh* there are two coves, on which are situated the villages of *Parfenitsa* and *Koutchouk Lambet*, or *Malua Lampada*. This last is remarkable, from a very pretty country-seat built on the sea-side. A projecting point, with some *rocks*, forms a small anchorage, where vessels should moor close in-shore, in about 3 fathoms water, with the anchors S. E. and S. W., and a hawser on shore to guard against the E. and S. E. winds. But vessels only touching there, anchor about two cables' length from the shore. *Cape Lioudagh* shelters them from the S. W.

From *Cape Lioudagh* the coast trends to the N. E. by N. (N. E.) and E. by N. (East) to *Cape Meganome*, which is 35 miles E. N. E. ¼ N. (E. by N. ¼ N.) from the former. In this interval we find the *Roads of Alouchta*, at six miles from *Koutchouk-Lambet*. The village is situated at the end of a valley, at the extremity of which rises the *Tehatir-dagh*, or *Tent Mountain*, remarkable from its form, and by its being insulated from the chain of mountains which it overtops. At *Alouchta* the coast is clean, but the road is open to all winds from the E. N. E. round South to the S. S. W.

SOUDAG. To the N. W. by W. (N. W.) of *Cape Meganome*, at the distance of 2 leagues, is the old fortress of *Soudag*, which may be seen from afar off, rising on a steep rock, at the bottom of a little bay, about 2½ miles broad. On the east of it is a broad valley terminating in a low beach, and on the west is a cove, which was formerly the harbour of *Soudag*. Here you may anchor, but the winds from the South to E. S. E. blow directly in. It is about three-quarters of a mile broad, and in the entrance there are about 11 or 10 fathoms water, and two cables' distance from the shore about 7 fathoms, bottom of mud and sand. Vessels anchor sometimes in the roads, in 12 fathoms, with the *Castle* bearing N. W. by N. (N. N. W.) and *Cape Lamani* W. by S. (West.) *Soudag* is at present abandoned and deserted, but the valley is still famous for its vineyards.

CAPE MEGANOME is in latitude 44° 47' N., and longitude 35° 7' E., and about 7 miles to the south-eastward of *Soudag*. It is not very high, but is seen at a distance from shore, on account of its projecture so far to the south. Having doubled this *Cape*, you will descry to the N. by E. (N. N. E.) the *Kara-dagh*, or *Black Mountain*, the point terminating quite steep, and its summit being crowned with rocks in such a form, that it has obtained the appellation of *Cock's-comb*.

To the east of *Kara-dagh* lies the pretty little *Bay of Kotebel*, open to the South and S. E., with two white rocks on the eastern side, which have the appearance of two boats under sail.

CAPE KIATLAMA lies N. E. ¼ E. (N. E. by E. ¼ E.) about 14 miles from *Cape Meganome*. It projects a good way out to the S. E. by E. (S. E.), and its extremity being formed by a little hill, seems detached from the main-land. Between it and *Cape Theodosia* is the *Bay of Tekieh*, open from the S. by E. to E. N. E.; nearly 4 miles broad and two deep, with from 14 to 7 fathoms water, muddy bottom.

THEODOSIA. On the other side of *Tekieh* lies a low sandy shore, forming part of the great bay, on the western side of which the *Town of Theodosia*, or *Kassa*, is built, at the foot of the last mountain of the southern coast of the *Crimea*. From *Cape Theodosia*, on the summit of which there is a chapel, a reef of rocks projects about a cable's length into the sea; a smaller one runs off the shore, about a mile more to the N. W. by W. (N. W.), and to the westward are the *Lazaretto* and *Town of Theodosia*.

Vessels in quarantine cast anchor before the lazaretto, about a cable's length from the shore, in from 8 to 5 fathoms water; but those in *pratique* anchor inside a point of land, on which are built several large storehouses, at two cables' length from the

own, in about 9 fathoms water; but by going to the west of this point, into a little bay, they can approach much nearer to the shore. The bottom is every where of stiff mud, which holds extremely well.

The Roadstead of *Theodosia* is accounted the best in all southern Russia, there being on account of a shipwreck ever happening there. It is sheltered on all sides, except on the east. If you are obliged to work in or out of the harbour, you may advance pretty close to the low shore to the north, for the water continues deep. From this place grain, wool, felt, hides, and butter are exported.

The large bay extends eastward from *Cape Theodosia*, 19 miles to *Cape Tchaouda*. Near *Theodosia* the shore is low and sandy; but farther eastward it becomes elevated, and bordered with red cliffs. The water continues deep close to the shore, and the coast is clean, excepting about *Cape Tchaouda*, on the western side of which are some breakers. A round hill near this *Cape* may be seen from some distance.

From this last *Cape* to that of *Opouk*, or *Cape Karak*, the distance is 18 miles. The coast between them runs nearly east and west, is bordered with a few hills, and the water is moderately deep. Two miles S. W. by W. (*W. S. W.*) from *Cape Karak* are three rocks, which look like two vessels under sail, with a boat, seen from ahead. These are called *Karavia*, or *Jechankaleh*, and near them vessels occasionally anchor, in about 10 fathoms water, muddy bottom, when waiting for a favourable wind to take them into the *Strait of Kertche*. The current here generally runs very strong to the south-westward. If found requisite, vessels may pass between these rocks and *Cape Karak*, though it is not to be recommended.

A resemblance has been observed by some mariners between *Cape Karak* and the *Rock of Gibraltar*; its summit is flat, and crowned with rocks, which appear like works of fortifications.

CAPE TAKLI. A slight bay is formed by the *Capes Karak* and *Takli*, of about 5 miles in extent, in which, at two miles S. by W. (*S. S. W.*) of a point which precedes *Cape Takli*, there is a shoal, with only 10 feet water upon it, and which has no mark to point it out to vessels that are obliged to keep close in-shore, in proceeding to or leaving the *Strait of Kertche*. It has caused the loss of several vessels.

On *Cape Takli* is a stone lighthouse, which exhibits a red fixed light.

2. THE SOUTHERN COAST OF THE BLACK SEA FROM THE BOSPHORUS EASTWARD, WITH THE EASTERN AND NORTH-EASTERN COASTS TO THE STRAIT OF KERTCHE.

The coast of *Anatolia* is of middling height about *Constantinople*, but it rises gradually towards the east. The whole coast is safe, and affords a number of good anchoring grounds.

About two miles eastward of the *Lighthouse of Asia*, situate at the mouth of the *Bosphorus*, between the *Capes* called *Gaum-Bouroun* and *Riva-Bouroun*, is the small roadstead of *Riva*, sheltered from the South, S. E., East, and even from the N. E., with a depth of from 3 to 5 fathoms, sandy bottom. A brook falls into the sea here. This place may be known by a white cliff (*Cape Riva*), which is 350 fathoms from the rocks called the *Cyanæas of Asia*.

Nineteen miles east of *Riva*, is situated the *Village of Kilia*, which has only a sandy beach.

KEFKEN. At 50 miles East (*E. by S.*) from the mouth of the *Bosphorus* lie the *Cape* and *Islet of Kefken*; these are low, and not always distinguishable from the mountains which overlook them. The anchorage, which sometimes affords shelter to vessels from northerly and easterly winds, is between the main-land and a rock under water. Vessels may ride with an anchor to the N. W., and a warp on shore. You should also have a hawser out astern to steady the ship. This place was also noticed in page 283.

From *Kefken* the coast eastward to *Cape Baba* forms an open bay, not very deep, the extremities of which bear from each nearly E. by N. (*East*) and W. by S. (*West*), distant 52 miles. Four miles to the southward of *Cape Baba* is the roadstead of *Penderaklia*, formed by a point of land jutting out towards the west. Between the two *Capes* the coast is low and even, and a few rivulets fall into the sea, among which the *Sakaria* and the *Anaplia* are the most remarkable.

The *BAY OF PENDERAKLIA* is less than a mile and a half broad at its entrance. A small projecting point separates the bay into two parts, and the anchoring ground is

in the northern part. Before the town are the remains of a mole 265 fathoms long, the extremity of which bears S. E. by E. $\frac{3}{4}$ E. (S. E. $\frac{3}{4}$ E.) from Cape Baba. At the entrance of the port formed by the same, there are 6, 5, 3, and 1 fathom water, with a bottom of gravel. In the direction of the mole are a few rocks, or rather stones. The road has from 7 to 11 fathoms water, bottom of mud and sand: vessels are there sheltered from the N. W. by East to South. The southern part of the bay has a very good bottom, but it is open from the N. N. W. to S. W. A small river runs into this part of the bay. Penderaklia is overtopped by a high mountain, on the summit of which are the ruins of an old fortress. On the high land, half a mile to the northward of the bay, are the remains of a tower, which appears to have been a lighthouse; at the foot of this high land the sea is deep, and near the shore the bottom rocky. At this place there is no commerce with foreigners; the boats and vessels belonging to it trade in salt, which they bring from the Crimea.

At 22 miles E. N. E. $\frac{3}{4}$ N. (E. N. E. $\frac{3}{4}$ E.) from Cape Baba is Cape Kilimoli, which is high, but projects but very little. At 14 miles further on, the River Bartine empties itself into the sea. This stream might receive large vessels were it not for a bar of sand at its entrance, on which there are only 7 feet water. Large boats go up to the Mouth of Bartineh, where they load fruit, eggs, &c. for Constantinople; salt forms the principal commodity of their imports.

AMASTRA, or AMASSERAH. This place at a distance bears the appearance of a group of islets. The town is situated 48 miles to the N. E. by N. (N. E.) of Cape Baba, on a double peninsula, the first part of which is joined to the main by a sandy isthmus, about 100 fathoms broad; the second, of a circular form, with a small hill in the centre, is joined to the first by a paved causeway, over which the sea breaks in stormy weather. It is about 200 fathoms in diameter. The whole extent, from the beginning of the sandy isthmus, in a N. W. direction, is 400 fathoms.

A cable's length east of the circular peninsula, and rather further north of the other, is an elevated islet, with steep yellow shores, about 150 fathoms in extent. Between this and the main are 14 fathoms water; but in using this channel you must be careful to avoid a rock which lies to the westward of the southern extremity of the islet, and close in with the main-land. Here you may anchor; but with the wind blowing fresh from seaward there is a great swell. The Roadstead of Amastra is on the eastern side of the isthmus. On the northern side, at the end of the town, was formerly a mole, the remains of which still serve to break the force of the sea coming from the N. E. To the south, on the other side of the harbour, the remains of two other moles may also be discerned. At a short distance from the land are 3 and 4 fathoms. The high land to the N. E. forms a bay a mile and a half broad, and a mile deep; open to the north. The anchorage is a little more than a quarter of a mile S. E. of the town, and the bottom is good.

Amastra has another harbour to the westward, formed by curvation of the peninsula, but open from the N. W. to the West. There are from 10 to 2 fathoms in it, and a small brook empties itself here. At a mile S. W. by S. (S. W.) from Amastra is a high peak, which is remarkable among the mountains. The commerce of this place is inconsiderable, only a few productions of Anatolia being exported hence for Constantinople and the Crimea.

At 30 miles E. N. E. (E. by N.) of Amastra, to the east of a high mountain called Tepehoulia, and at the foot of another, in the form of a sugarloaf, is the anchorage of Kitros or Kidross. It is small, and the entrance is obstructed by a rock, which defends a few vessels from the swell of the sea; but it is exposed to the north winds. To avoid the rock in going in, vessels should range along the east shore.

CAPE KEREMPEH. This Cape is one of the highest in the Black Sea, and therefore the most easily made by vessels coming from the Crimea. From Cape Saritche, the southernmost point of that peninsula, the distance is 130 miles; and it is said, in clear weather, they have both been seen at the same time. These two promontories divide the Black Sea into two parts, the east and west, often very distinct, by the different winds blowing at the same time in each. Cape Kerempeh deserves the name of *Spartivento*, (separator of winds,) which has been given by the Italians to several capes in the Mediterranean; for a strife between the winds is very often observed abreast of it, forming a line of separation very distinct.

Ineboli is a small town, situated at seven leagues to the eastward of Cape Kerempeh; there is a small roadstead, and here, seventy years ago, the productions of Kustanbol used to be embarked.

CAPE INDJEH lies at the distance of 73 miles east from Cape Kerempeh, in latitude

42° 8' N., and longitude 34° 56' E. Between them the coast runs east and west, with few windings; there are two or three beaches, frequented by country vessels, the most remarkable of which are *Andoune* and *Istifan*. *Cape Indjeh* runs pretty far into the sea; it is low, and covered with bushes. The shores are formed of a reddish rock, and in form the *cape* has much the resemblance of a *bastion*.

On the eastern side of *Cape Indjeh*, at the commencement of a low white sandy shore, is the excellent little *Harbour of Ak-liman*, eight miles west of *Sinope*. It is rendered rather difficult of entry, on account of some *rocks*, which contribute to defend it from the wind and sea. The depths in it are 9 to 5 fathoms, and it is capable of containing six or seven small vessels.

SINOPE. This place may be recognized from whatever quarter you arrive, by the peculiar form of the *Peninsula of Boz-tepéh*, the top of which is flat, and its shore cliffy; towards the main-land, on the west, the declivity is more gentle than that of the eastern side; and the isthmus on which the *Town of Sinope* is built is scarcely visible at a distance, so that the *Cape* bears the appearance of an *island*. It is about 5 miles in circumference, and its northern shores are bold, and clear from *rocks*; but about 60 fathoms from the eastern extremity is a *rock*, somewhat high, between which and the main vessels may pass without danger, in from 14 to 19 fathoms.

In coasting along the southern side of *Boz-tepéh*, or on approaching in beating, attention must be paid to *two shoals*, which extend about a cable's length from the shore. The first is situated to the westward of a ravine, about $\frac{2}{3}$ of a mile to the westward of the *cape*, the other a quarter of a mile east of the *town*. On this shore there is no other landing-place but at the ravine, the rest of it being beset with *rocks*.

The *Road of Sinope* is before the town in 9 and 10 fathoms, bottom of mud mixed with sand. You may even approach nearer to the shore into 5 or 3 fathoms water, but at this distance there are some spots of the bottom very foul. On the shore are to be seen the ruins of some ancient jetties. Although the anchorage of *Sinope* is open from E. S. E. to South, vessels lie quite safe here, even in winter.

Near *Sinope* the effects of a current running westerly as far as *Cape Kerempéh* have been experienced, extending a very short distance from the shore; but, at a greater distance at sea, the current sets to the east.

The *Town of Sinope* is divided into two distinct parts; the first is the fortress situated on the isthmus, and inhabited entirely by *Turks*: the sea washes the walls both on the north and south. The second part is composed of about 300 houses of *Christians*, and situated on the peninsula. The *Sultan* has a dockyard here, and merchant ships may also be built or repaired at a very cheap rate. The commerce of this place extends, at present, no farther than with some parts of the *Crimea* and *Constantinople*. Dried fruits, tobacco, bay-leaves, and different kinds of wood, form the principal exports.

From *Sinope* E. S. E. $\frac{1}{2}$ S. (*S. E. $\frac{1}{2}$ E.*), at the distance of 39 miles, is *Point Kizil-Irmak*. The coast between them forms a *gulf* or open bay, in which, at 14 miles south of *Sinope*, is situated the little *Town of Gherzeh*, which has an excellent roadstead, open to the east.

The *Point of Kizil-Irmak* is formed by the depositions of the river of the same name, which discharges itself into the sea there. It is easily recognized by the distance it runs out into the sea, and by its being low, and the quantities of trees by which it is covered. Close in with the point there are 4 to 5 fathoms water.

SAMSOUNE. At 30 miles S. E. $\frac{1}{2}$ S. (*S. S. E. $\frac{1}{2}$ E.*) from the *Point of Kizil-Irmak* is *Cape Samsoune*; and 16 miles to the southward of the first, where the land becomes higher, the little *River Kaudjougaz* empties itself into the sea, off which there is an open roadstead. The *cape* is remarkable on account of its height, being of a brown colour, and precipitous; but it should be avoided, as it is bordered with a *shoal*. Among the mountains of this coast, those of *Tchagaïaze* and *Nebia* are the most remarkable, the former by its summit being cleft, and the other by its round form. When this latter bears W. S. W. $\frac{1}{2}$ S. (*W. S. W. $\frac{1}{2}$ W.*), and the *Point of Kizil-Irmak* N. W. $\frac{1}{2}$ W. (*N. W. $\frac{1}{2}$ N.*), *Cape Kara-bournou* will bear S. $\frac{1}{4}$ E. (*S. $\frac{3}{4}$ W.*).

The *Roadstead of Samsoune* is semicircular, open to the N. E., and very bad in winter. Vessels may anchor in 10 to 5 fathoms water, muddy bottom. The shore is very difficult of access. The *Town of Samsoune* is the place from whence the merchandise of *Amasia* and *Takat* (in the interior,) as also of the estates of *Tchapanoglau*, are exported, and from whence in return they receive their imports. Good tobacco is to be had here for exportation.

Beyond *Samsoune* the chain of mountains is about 10 miles from the sea; the coast

becomes low and woody, and takes a N. Easterly direction. The *Point of Tchenbéh*, on the western side of which is the mouth of the *River Yehil-Irmak*, (green river,) is 14 miles to the east of *Samsoune*. From thence the coast runs east for about 10 miles to *Cape Kiallibassi*, and then inclines S. E. by E. $\frac{1}{4}$ E. (S. E. $\frac{1}{4}$ E.) toward *Eunieh*. In this space the *River Thermeh* empties its waters into the sea, about 12 miles to the westward of *Eunieh*. From the bottom of the *Bay of Samsoune*, where the low shore begins, as far as *Eunieh*, the coast is bordered with a bank, on which the sea breaks, and along which the depths are shallow within about 3 miles from the shore. The bottom is of sand and shells, and the water is of a white colour to two miles distant.

When you are about 15 miles to the N. E. by E. (E. N. E.) of *Samsoune*, you will discover, among several others, the summit of *Mount Tchagaïaze*. An oblong mountain lies in the direction of the mouth of the *Thermeh*; and *Cape Eunieh* with a small islet, terminates the view of the coast towards the east. Approaching this islet, you will discover a tower and monastery upon it. *Cape Thermeh* bears from *Cape Eunieh* W. N. W. $\frac{1}{4}$ N. (N. W. $\frac{1}{4}$ W.) distant 18 miles.

EUNIEH is built in the shape of an amphitheatre on the eastern declivity of the *Cape*. The population is composed almost entirely of Greeks. Here ship-building has made much progress of late years, and the vessels bear a good character. Rope and cotton canvass are also manufactured here. The roadstead, in summer, is pretty good, but northerly winds are dangerous. At a quarter of a mile from the shore there are 4 to 5 fathoms, and closer in only 1 to 2.

At 17 or 18 miles E. $\frac{1}{4}$ S. (E. S. E. $\frac{1}{4}$ E.) from *Cape Eunieh*, the *Cape Iasoun* advances into the sea in the form of a glacis; its shore is low, and surrounded with breakers. Near this point may be seen a square tower, built on a mountain in the shape of a sugarloaf.

Capes Iasoun and *Eunieh* form the extremities of a bay about 8 miles in depth, the bottom of which is situated the *Town of Fatsah*, 8 or 9 miles S. W. by W. (W. S. W.) from *Iasoun*. The sea is very deep in this bay, and the *River Balana* runs into it, on the western bank of which the *Town of Fatsah* is situated.

VONA. At 7 miles E. $\frac{1}{4}$ S. (E. by S. $\frac{1}{4}$ S.) from *Cape Iasoun* is *Cape Vona*. This point runs into the sea in an easterly direction, turning towards the south, and thus forming an excellent harbour to the east, in which there are 20 fathoms water, diminishing to 15, and closer in-shore to 6 and 5, with a good bottom. Vessels belonging to *Eunieh* generally pass the winter here, for which purpose they moor with two anchors on shore, and one astern, in the offing. They are sheltered from all winds, except between the S. E. and East; but the land-wind is the only one that blows with any degree of violence. A small town, near the shore, marks the site of the ancient town of the same name.

Beyond *Vona* the coast runs to the South, turning to the East and the E. S. E., forming several curvations and headlands, with some roadsteads, unknown to strangers, but which afford shelter to the coasting vessels which frequent these shores. The *Roads of Biok-liman* and *Lar-liman*, situated to the S. E. by S. (S. S. E.) of *Vona*, are much esteemed; their shores are safe, and approaches easy.

KERESOUN, or KIRASONDE. About 27 miles to the E. by S. (E. S. E.) of *Vona*, and near the third point eastward, are the town and roadstead of *Kirasonde*, where vessels may anchor to the east of a little point, before the Greek quarter of the town, where they are sheltered from west winds; or west of the same point, before the Turkish quarter. Vessels intending to pass the winter here, moor with two anchors ashore, and two to seaward. Among the principal articles of exportation are copper, alum, nuts, and the wood of the walnut-tree. At five miles to the east is an islet, where two or three vessels may moor.

Cape Zéphira, or *Zeffré*, is nearly 11 miles to the eastward of *Kirasonde*. The coast between is surrounded with breakers. The *Cape* shelters from westerly winds the harbour of the little town to which it owes its name.

TIREBOLI is situated at 10 miles to the east of *Zeffré*. There are two rocks to the west of the town. Vessels anchor abreast of the fortress, exposed to northerly winds. At *Kirasonde*, *Zeffré*, and *Tireboli* the inhabitants draw up their vessels on the beach during the whole of the winter season.

To the E. N. E. (E. by N.) of *Tireboli*, about 6 miles, lies *Cape Kara-bournos*, and beyond it, in the same direction, 10 miles further, is *Cape Kourelis*. After having doubled the latter, *Cape Ioros*, or *Oros*, will be seen. From *Ioros*, *Cape Kourelis* bears W. $\frac{1}{4}$ S. (W. $\frac{1}{4}$ N.) distant about 11 miles; between them is the Harbour of *Bouyouk-*

man, which is very safe. From *Cape Vona* to *Cape Ioros* the bearing and distance East (E. by S.), 72 miles.

With *Cape Ioros* bearing S. E. by E. $\frac{3}{4}$ E. (S. E. $\frac{3}{4}$ E.) you will see a range of mountains, extending from *Kourelis* to *Kirtsonde*, and overtopped by a high mountain, above which is a mountain remarkable for its form, and lying in the direction *Kara-bournou*.

The coast about *Cape Ioros* is variegated with several white patches, and a hillock the form of a tumulus stands at its extremity. On the eastern side the shore is high and reddish. The cape is about 16 miles W. by N. $\frac{1}{4}$ N. (W. N. W. $\frac{1}{4}$ N.) on *Trebizonde*.

The course from *Cape Oros* is E. S. E. (S. E. by E.), 5 miles to *Akhé Kaleh*, thence S. E. (S. E. by S.) for the same distance to *Platana*. Here is an excellent anchorage, situate at full two leagues from *Trebizonde*. It is generally safe, although it is open from the N. W. to the East, the land-winds alone being in any degree violent. Vessels moor with their heads toward the land, and sterns to seaward. Some parts of the bottom have become foul since 1807, at which time the Russian fleet took several vessels there. There are about 600 houses at *Platana* in a very pleasant situation.

Cape Ioros forms a useful land-mark to vessels bound to *Trebizonde*, which is seen the west of a valley, and a great white cliff. *Platana* is situated at nearly midway between this town and the Cape, beyond which the extremities of *Cape Kourelis* and *Kara-bournou* are to be seen, when it bears S. W. by W. $\frac{1}{4}$ W. (W. S. W. $\frac{1}{4}$ W.)

TREBIZONDE. This place has an indifferent roadstead, to the east of a point which there is a palace in ruins, which should not be approached within half a mile's length, on account of some rocks at its base. Vessels anchor in from 8 to 5 fathoms, mooring W. S. W. and E. N. E., but exposed to the winds from W. N. W. far as east. This anchorage, which is called *Tchumleketchi*, is generally safe in summer, but in winter *Platana* is preferable. One mile and a quarter from *Trebizonde*, to the east, is a little river, which, traversing a valley, runs into the sea by several arches, over one of which is a stone bridge of several arches.

Before the town, which extends itself to the west of *Tchumleketchi*, vessels must not approach the shore within a good cable's length, so as to avoid the ruins of a mole, built by Adrian, and now under water.

The principal articles of exportation which *Trebizonde* offers, in its present state, are copper, walnuts, hazel-nuts, and tobacco.

We shall now give the remarks of CAPTAIN MIDDLETON on the passage from the BOSPHORUS to TREBIZONDE, and follow with his remarks on the WEATHER, when we shall resume the description of the S. E. COAST.

"On leaving the *Bosphorus*, a ship may steer so as to make the distance as short as possible, as the wind never blows hard directly in-shore; but if with any violence, is from the N. W. It is not, however, unusual to steer, in the first instance, to the E., and make the *Crimée*, which may, perhaps, answer sometimes in summer, but see no reason for adopting this course in winter.* The whole coast is exceedingly old and conspicuous, and can hardly admit of a mistake if the weather be tolerably clear. *Cape Ioros* may be passed as close as you please, keeping along shore; if at any distance, a stranger may easily miss *Platana*, it being an inconsiderable place; and should have passed it without notice, had it not been from seeing vessels at anchor in the roads.

"*Trebizonde* will be seen immediately after passing *Cape Ioros*, and an old ruined building standing upon a bold projecting point of the town, on the eastern side of which is the anchorage. If the wind be off the land, a vessel may pass very close round this point; but if otherwise, she must give it a berth in going in for the anchorage, as the sea breaks heavily upon it; and some rocks, just above water, close to it on the east side, cause a very awkward curling swell to roll into the bay, some distance to the eastward of the point. I lay about a quarter of a mile from this point, in 5 fathoms water, with it bearing by compass W. N. W., and a low point to the westward, E. by S., a cable's length and a half from the shore.

"I would, however, recommend anchoring a little further to the eastward, say

* It is not desirable, at any period, to adopt this route.—H. D. M.

nearly half a mile from the *Point of Trebizonde*, so as to be just clear of some very high land, which, having directly astern of me, caused the land-wind in fine nights to come off in stronger gusts than I think it would a little more to the east. It is excellent holding ground, and quite clear for hempen cables. It will be necessary to moor immediately with an open hawse to the north, the anchors laid well apart, and a good hawser and stream anchor in-shore, as a stern-fast. The wind is so variable here, and coming off the land every night, that if a ship were to swing, she would be continually lying broadside to the swell, and would run the risk, from perpetual changes, of loosening her anchors in the ground, besides the difficulty of keeping a clear hawse. A vessel may hang by her stern-fast without any fear;* there is never any swell, except from the north; and although the land-wind comes off pretty fresh sometimes, it is when the water is quite smooth, and during the finest weather.

“WEATHER.—The only bad weather is from the N. W., with gales that may come in with a violence to cause some alarm to a stranger, but it abates quickly on reaching the shore; its continuance outside will send in a considerable swell, which, however, does not come in with any violence, and will not cause any considerable strain upon the cables. When the wind is due north, it is very moderate, and in bad weather accompanied generally with heavy rain; and when the mountains to the eastward can be seen quite clear of clouds, the finest possible weather will follow, with the sea perfectly smooth, a gentle breeze all day, varying from N. E. to S. E., and the wind off the land at nights, as I believe it invariably is every night during the year.

“These remarks are made from observing the weather at *Trebizonde* in the months of November and December, 1831, during which I experienced it worse than the people on shore stated it to have been for some years.

“Since the above was written, I have been twice at *Trebizonde*, in March, and subsequently from May to August, and each time I have laid in different situations, to ascertain the best anchorage, and am inclined to prefer my first berth, as described; and with a small vessel, instead of adopting a more easterly anchorage, I consider that a better situation would be even nearer the town, as well as somewhat nearer the shore astern. A vessel may lie in $3\frac{1}{2}$ fathoms, laying the N. W. anchor in 3, bringing the point to bear something to the North of N. W., and a fort, at the extremity of the town, on the beach, right astern. This would be the best winter anchorage.

“The shipping of the country, and boats that frequent the place during summer, all take up their berth astern of where I lay in the winter; that is, near the shore, off two old ruins (which have been a church) standing upon a projecting cliff, towards the declivity of the mountain which surrounds the bottom of the bay, there being 3 fathoms water in this direction, very near the beach.

Latitude of the Consul's garden, at *Trebizonde*, $41^{\circ} 1' 25''$ N. }
Longitude, being assumed $39^{\circ} 42' 0''$ E. } Var. 8° W.

“N.B. The above longitude I think is correct, having found the distance measured by my chronometers, backwards and forwards five times, between *Constantinople* and *Trebizonde*, to agree very well with it; although, not having upon any of these occasions had the opportunity of taking sights so soon as I could have wished, after the several periods of my arrival at each place, I cannot be so confident as I might otherwise have been; but having upon all these occasions made the land very exactly, rates for the chronometers having been always obtained at the periods of departure, I am satisfied that the above longitude is pretty well to be depended upon.”

Further remarks on the weather at Trebizonde, by Captain Middleton. “Arrived on the 8th November, 1831. When off *Cape Ioros*, in the morning, a heavy gale from the N. W.: on nearing the land the wind gradually lulled, though appearances indicated a continuance of the gale in the offing. On reaching the anchorage at *Trebizonde*, very little wind. Brought up in 5 fathoms, with a considerable swell rolling in. Barometer on shore that day, 30.08, and the day previous, 30; during both of which we had experienced bad weather at sea. In the night, wind off the land; as I may observe, once for all, was the case every night during my stay at *Trebizonde*.

“On the morning of the 9th the weather cleared up, the sea went gradually down, and for fourteen days had the finest weather imaginable; sea quite smooth, light

* At the commencement of a gale from the N. W., this stern-fast should be slackened down, to allow the ship to come head to wind; it is soon over, and it should then be hove in again, to keep the swell, which comes from the north, right ahead.

winds all day, varying two or three points on each side of east. The land-wind at nights sometimes very fresh, especially on those nights when the weather had been finest during the day. Barometer, on the 9th, 30.26, on the 10th, 30.37, and continuing till the afternoon of the 21st, always between this and 29.94 in., never being under 30 in., except once.

"On the afternoon of the 21st, appearances indicated a change. Barometer, 29.98. At 8 A. M. of the 22d, barometer, 29.80, a furious gale came on from the N. W.; sea at the time quite smooth. It is worthy of remark, that on this day Mr. Brants, the British Consul, was among the mountains a short distance in-land, and felt not the least of the breeze, it being perfectly calm with him the whole day. The wind came in a tremendous squall, but had hardly struck the land, before its violence was sensibly checked; before it produced any considerable sea, it was fast abating, and at noon a calm took place. At 1 P. M. a light air came off the land; a great swell continued rolling in that day and the following. Barometer, at 4 P. M., 30.

"The weather continued to the end of the month very unsettled, with a great deal of rain, and occasionally some swell; light airs of wind from all points of the compass, and a considerable part of the time perfectly calm. Barometer varying from 29.84 to 30.27. Thermometer, during this period, in the Consul's house, on shore, generally about 55°; lowest 53½°, highest 59°.

"December 1st, 2d, and 3d, tolerably fine weather, but generally dark and unsettled. Barometer, 30.18, descending, till the afternoon of the 3d, to 29.61, when a swell came on without wind. On the 4th, in the morning, weather appeared fine; barometer, 29.66; but about 1 P. M. came on suddenly to blow from the N. W. Wind almost immediately lulled on reaching the land, and soon after came directly off-shore. Barometer, at 4 P. M., 29.74. Rained heavily the whole night, and on the hills, close down to the sea, a considerable quantity of snow fell. 5th December, calm the whole day; barometer, in the morning, 29.94, at 4 P. M., 29.98; appearances seemed flattering for a return of fine weather, though very cloudy in the offing; calm continued all night, or trifling airs off the land; swell, which commenced in the afternoon of the 3d, continued. 6th, Dark and unpleasant weather; barometer, at 8 A. M. 30.14, at 4 P. M., 30.29; occasional squalls all day from N. W., with rain and cold weather; thermometer, on shore, 53.

"The wind in these squalls ceased immediately on reaching the shore, and came off the land. Heavy rain in the first part of the night, and much snow fell upon the hills. 7th, in the morning, fine clear weather; mountains to the east quite clear, indicating a total change of weather; wind off the land, and very cold; thermometer, in the cabin, 44°; barometer, 30.46, and, at 4 P. M., 30.33. This weather, the finest imaginable, continues at the time of closing these remarks. 10th December, 1831.

"The conclusion I have been able to come to from my observations of the weather, as above described, added to the information received from residents, is decidedly favourable to the safety of the anchorage of *Trebizonde*. From the land in the interior being exceedingly mountainous, and covered with snow, and very high land continuing down even to the shore, (which description applies to the whole extent of the coast along the south side of the *Black Sea*,) it appears that the atmosphere over the land is so considerably more dense than over the sea, that the wind will never blow upon it with any force, or will, at all events, abate the moment it reaches it.

"The only wind that causes any swell is from the N. W., and although this wind comes from the cold regions bounding the north of this sea, and were this coast of a different description, so as to be heated, the wind from this quarter would undoubtedly blow down upon it with great violence; yet, the contrary being the case, these N. W. winds are checked, and lose their force on reaching the warm latitudes in the offing, and have no tendency to extend to a coast where, perhaps, within a mile or two of the shore in-land, the thermometer is considerably below the freezing point.

"Reference to the height of the barometer will, I think, clearly prove that the state of the atmosphere has been such during the period to which my observations refer, that a gale must have been checked before reaching the shore, or immediately on its arrival there. The variation in the height of the mercury has been trifling: during the first period of bad weather, 30.8; the lowest it attained during 15 days of bad weather, from the 22d November to the 6th December, inclusive, being 29.61, (though it only reached this point for a short time, and was generally much higher,) and during the finest periods, standing from something above 30 to 30.46; thus, there being an absence of the first cause of wind, a light and rarefied atmosphere.

The mountains here approach the mountains of the Caucasus range, and are generally hazy; in clear weather, however, to the N. E., the summits of the Caucasian chain, crowned with snow, may be discerned, with a few hills, situated on the other side of the marshy and woody plains which extend to the sea side.

The coast now trends N. N. E. (N. E. by N.) and N. N. W. (N. by W.) to the River Rion, in which distance the coast has no place of shelter for vessels that, on account of their size, cannot go into the rivers, which there empty themselves into the sea.

The River Rion, or Phasis, has two mouths, and here is situated the Russian *Amoy* of the district of miles from Batoum. Its white walls, from between the rocks by which it is surrounded, may be seen afar off. Two small hills are sometimes visible to the south of Rion, and also two other to the north of it. The anchorage is two miles from the river, in from 12 to 15 fathoms water, on a muddy bottom. Flat-bottomed vessels only can enter the river, on account of the bar at its entrance.

The coast of Abkhaz, runs to the sea at about 7 miles to the northward of Rion. A dog, on the south side points out to the mariner the *Fortress of Anzour* Rion, which, when vessels intend anchoring here, should be brought to bear a few miles to the south of Rion, distant about two miles and a half; you will then have a narrow water, muddy bottom. On the east are three small hills, one of which, more striking than the others, resembles a saddle, and is called *Mount Senna*. On the north side of

the point, which is situated a short distance from the coast. Its vicinity, which is very fertile, produces oranges, lemons, and figs, and is of an extraordinary size. In point Rion the mountains approach the shore, and become very high. Hence, when in the channel of Batoum, the coast is high and the bottom steep, and much difficulty is experienced in passing.

At 14 miles N. E. by E. (E. N. E.), from Rion is Cape Kemer, which is high and fertile. The point is a pass called *Athens*, formerly at *Athens* only, then *Georgian* only, by a few miles. On the coast the city traces of *Napoleon* are still seen, and there is, or was, a spring of it running near *Athens*.

WATERS. A great white cliff, and a point formed by the depositions brought down by the *Heur Tibouk*, at the base of some very high mountains, mark the new approach to Batoum, which is 63 miles E. N. E. $\frac{1}{2}$ N. (E. N. E. $\frac{1}{2}$ E.) from Rion. The anchorage is spacious and good, with 15 and 18 fathoms water in it, and along shore it is deep enough for a line-of-battle ship to lie close in. Vessels should have their anchors down on account of the land-breeze.

This place may be recognized by vessels coming from the westward at 12 or 15 miles' distance, from the trunks of trees on the point. From this point a shoal runs out about half a cable's length to the north, and there is another on the middle of the entrance, so that in entering, a good berth should be given to the point, and the eastern shore should be kept close in with. The above-mentioned point defends the anchorage from west winds, but the north winds blow right into it. This town was formerly very considerable, and served as a mart for the merchandise of the interior. At present but wheat, dried fruits, wax, honey, rice, &c. form the principal export articles of the place. A great quantity of olive-trees also grow there.

EASTERN COAST.

Beyond Batoum the mountains recede from the coast, and are seldom seen at sea, especially as the weather hereabout is generally hazy; in clear weather, however, to the N. E., the summits of the Caucasian chain, crowned with snow, may be discerned, with a few hills, situated on the other side of the marshy and woody plains which extend to the sea side.

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The coast of Abkhaz, runs to the sea at about 7 miles to the northward of Rion. A dog, on the south side points out to the mariner the *Fortress of Anzour* Rion, which, when vessels intend anchoring here, should be brought to bear a few miles to the south of Rion, distant about two miles and a half; you will then have a narrow water, muddy bottom. On the east are three small hills, one of which, more striking than the others, resembles a saddle, and is called *Mount Senna*. On the north side of

the *Copi* are a few houses, where quarantine is performed. *Redoubte Kuleh* has been till now the mart both for importation and exportation for all *Imeritia* and *Georgia*.

When the wind is not very strong at the anchorage, vessels turn their heads to the current, which runs with great force to the north. After storms, quantities of broken trees are seen floating about, which are brought down by the waters from the *Rione* and *Copi* to the sea. This last river has also a bar of earth and stones at its entrance, which prevents vessels drawing more than 5 feet water to enter, but inside which the water becomes deeper. This bar being of a shifting nature, great precaution is requisite in approaching it, and the lead should be kept continually going. Besides this bar, there is another obstruction to the entry of this river. When the sea is rough, the waves being then opposed to the current from the river, cause a kind of rapid, and it is then impossible for any description of vessels to force the bar. This renders it more inconvenient, as the surf on the beach prevents goods from being landed outside. The climate of these two places is extremely unhealthy.

To the north of *Redoubte Kuleh* the mountains belonging to the *Caucassian chain* approach the coast, and assume a very imposing appearance about *Soukoum Kaleb*, which is 54 miles beyond *Redoubte Kaleb*. Between these two places there are two points worthy of notice; the one is *Cape Iskouria*, the other *Cape Kodor*. The *River Kodor* runs into the sea, near the extremity of the point of the same name. Near the mouth of the river there is a depth of 5 fathoms, with a bottom of mud and sand, but the sea suddenly deepens farther out. A sand-bank runs off from *Point Kodor* to the N. W. by W. (*N. W.*), about two-thirds of a mile into the sea, on which the greatest depth of water is 12 feet.

SOUKOUM KALEH is a Russian fortress, situate at 10 miles N. by W. $\frac{3}{4}$ W. (*N. $\frac{3}{4}$ W.*) from *Kodor*; between them the shore, which continues to be low and woody, is clean and safe, and vessels may approach to within a cable and a half's length of the coast. *Soukoum Kaleb* is overtopped by mountains, which two peaks serve to point out to the mariner. The anchorage is about $2\frac{1}{2}$ cables' length E. by S. (*E. S. E.*) of the fortress, in 10 or 11 fathoms. The water does not increase in depth so rapidly in this direction, but to the south it shelves off very suddenly; while to the west it becomes so shallow that there is danger of striking the bottom in approaching too near the point. The *Cape* is about a mile and a half S. W. by W. $\frac{1}{4}$ W. (*W. by S. $\frac{1}{4}$ S.*) from the fortress, and here is nothing to fear. This harbour, which is justly renowned for its safety, has an opening of 87 degrees, exposed to the south winds, which blow directly in.

Coming from the northward, and being abreast of *Pitsiounta*, about 15 miles from land, a large gap will be observed in the summit of the mountains, and which serves to point out the situation of *Soukoum Kaleb*. The counterparts of the *Caucasus*, washed by the *Black Sea*, form a coast, which extends S. E. and N. W. as far as *Anapa*. This coast is little known, but in general is steep-to, that a large vessel may approach any of the points. It is bordered with high cliffs, which, by their form, (generally like arches,) as well as by their colour, which is reddish from *Soukoum Kaleb* to *Cape Itokopaskhe*, and white from thence to *Anapa*, may be remarked at a great distance; and at the same time render the recognition of the harbours easy.

The sea-winds seldom blow strong on this part of the coast, on account of the surrounding high mountains; but the north and east winds, rushing from the summits of those mountains, are sometimes extremely violent. Every evening the mariner is sure to have the land-breeze, which lasts till about ten o'clock in the morning, when the sea-breeze sets in. A current also, as before observed, is perceived, setting sometimes very strongly towards the *Strait of Kertche*.

PITSIOUNTA. Twenty-six miles to the W. by N. (*W. N. W.*) of *Soukoum Kaleb*, after sailing along a very high coast, and four miles past a low point, you come to the *Roads of the Valley of Pitsiounta*. This place is open to the south; it is wide and deep, and is reported to be very safe. Several productions of the *Caucasus*, and, among others, very fine box-wood, are shipped from thence.

From *Pitsiounta* to *Toughe* the coast is but little known; and although there are several anchoring places in the space, in the absence of any knowledge of them, we must pass over them in silence.

TOUGHE is situate about 20 miles to the east of *Pchiate*; the roadstead is of a semicircular form, being about three-quarters of a mile broad. Vessels should not come within a cable's length of the two points which form the entrance, as there is a bank on each side; but cast anchor between them, in 10 or 11 fathoms, muddy bottom. The interior of the bay may afford better anchoring ground. The S. W. wind blows

right into it. A valley, with a hill like a nipple, which is seen in the brown on the distant mountains, and three small headlands, serve to point out the situation of *Tougue*. Vessels frequent here to exchange goods for the production of the country, which consists of rye, wax, furs, and timber.

PCHIAIE. In making *Pchiate* from the south, it is easy to recognise *Cape Itokopasche* by its gentle slope, terminated by a reddish cliff, not very high, with a few pine-trees on its summit. To the east is seen a round-topped hill, afterwards a peak farther from the sea, and still more easterly, a bare conical mountain, overtopping several others. Then the nearest headland which slopes gently toward the sea, and is surrounded with cliffs, is *Cape Tsoungu*. It should have a good berth given when doubling it, to go to an anchor abreast of the *Valley of Pchiate*, on account of some rocks which lie near it, under water; at the same time you should not approach too near towards a hill on the north side of the valley. The anchorage is abreast of a beach, about a cable and a half's length from the shore, in 4 fathoms water, bottom of mud and shells.

North of the beach a small river runs into the sea, almost at the foot of the northern mountain. The mouth of this river is barred with mud and stones to such a degree, that at times a boat cannot pass it; but at 400 fathoms from its mouth the river becomes deeper, and thus facilitates the conveyance of goods by the country boats. The *Valley and Mountains of Pchiate* are covered with trees, and at the side of the river a small wooden monument marks the grave of a Circassian prince.

If, making *Pchiate* from the northward, and being but a little distance from the *Port of Ghelendjik*, hereafter described, three headlands will be seen to the south; these are called *Abetsia*, *Itokopasche*, and *Tsoungu*: between the two last, as already shown, is *Pchiate*.

From *Cape Itokopasche* a reef of rocks runs out about half a mile towards the S. W. This Cape, together with *Cape Abetsia*, next to it, forms a considerable projection into the sea, and about them are high white cliffs, which are not interrupted between the two Capes, excepting by the *Valley of Tchiangoti*. From *Cape Itokopasche* as far as *Anapa*, the coast of *Circassia* very much resembles the coast of *England* about *Beachy Head*.

MEZIP. *Cape Abetsia* is about $6\frac{1}{2}$ miles to the S. E. $\frac{3}{4}$ S. (S. S. E. $\frac{1}{4}$ E.) from the entrance of *Port Ghelendjik*, between which and the Cape the coast bends in very much, and forms the excellent *Roadstead of Mezir*, otherwise known by the name of *False Ghelendjik*.

GHELENDJIK. Being abreast of, and about 10 miles distant, from the *Valley of Tchiangoti*, *Cape Tsoungu* may be seen terminating the view of the coast to the south, and to the north the little *Cape Tliouweuse*, which is marked with six round white cliffs: these must be left to starboard in entering *Ghelendjik*. This place may also be easily known in coming from the north. The *Cape Achimsia*, which may be seen on the eastern side of *Soudjouk Kaleb Bay*, is known by a great cliff, with several angles or projections: beyond it follows a long low coast, and then is seen *Cape Tliouweuse*, of which we have just spoken. On advancing, you open *Ghelendjik Bay*, for which you steer, taking care to give the low point a good berth, on account of a ledge of rocks which runs out from it a cable and a half's length to the south. On the other side also, off *Cape Tliouweuse*, there is a bank, half a cable's length, which runs out from the south side of the Cape; but having passed which, vessels may sail close in-shore. The mouth of the bay is about a mile wide, with 8 and 9 fathoms water in the middle. The extremity of *Cape of Tliouweuse*, which is about 5 fathoms high, is steep and rocky.

The whole southern part of the right-hand side of the bay is occupied by a ledge of rocks as far as a group of trees, and two huts, before which you may anchor, in about 4 or 5 fathoms water, about a cable's length from the shore, on a sandy bottom. Vessels moor with one anchor to the N. W., the other to the S. E., and if it be intended to stay long there, it is as well to back the anchor to the S. E., on account of the land-winds. A rivulet, after having meandered through the plains, runs into the sea, near the huts. The north-western side of the bay also affords a good anchorage; but it is not frequented, on account of its not being inhabited. In beating up to the huts, vessels should not approach too near to the shore opposite to the entrance of the harbour, for it is all rocky. The *Harbour of Ghelendjik* is of an oval form, about 3 miles in length from N. W. to S. E., and $1\frac{1}{4}$ mile broad.

SODJOUK KALEH, or TUMUSSE. Vessels coming from the N. W., and having doubled *Cape Trussup*, which runs a good way into the sea, to the west of

Soudjouk Kaleh, will see *Cape Achimsia*. This *Cape*, as before noticed, is ended by a cliff with several angles, and forms the eastern side of the entrance into *Soudjouk-Kaleh Bay*. When it is seen, steer straight for it, until the tomb of a Circassian prince is seen to the north of *Achimsia*; then steer for the tomb until you come close in-shore into 22 fathoms water; you may then turn to the northward, and steering N. W. by W. (*N. W.*), you will escape a long ledge of rocks which runs from the opposite shore towards the E. S. E. For the same reason, when coming from the south, vessels should always keep close in with *Cape Achimsia*. The anchorage is about two cables' length from an old ruined fortress, in about 10 or 12 fathoms water, where the bottom is good, but does not hold well with easterly winds. Here the same as in all the ports of this coast, the land-winds are the most violent.

Both shores of *Soudjouk Kaleh Bay* are very high, but at the N. W. extremity there is a valley, where barter is carried on with the natives, and by which communication is held with the fertile plains of *Kouban*. The ruins of an old fort stand in latitude $44^{\circ} 39' N.$, and longitude $37^{\circ} 46' E.$

Anapa is about 27 miles to the north-westward of *Soudjouk Kaleh*. After doubling *Cape Tsussup*, you will see the mountains diminishing in height, and ending to the N. W. in tall white cliffs and a steep headland, on which the walls of the fortress of *Anapa* are to be seen.

Opposite the last valley which is seen when sailing from the south towards *Anapa*, and about $7\frac{1}{2}$ miles S. E. $\frac{3}{4}$ S. (*S. S. E. $\frac{1}{4}$ E.*) from the fortress, there is a small flat island, about 200 fathoms long, which serves to shelter vessels from sudden tempests from the north. They anchor between the island and the main, in about 5 or 6 fathoms water, with a hawser ashore on the island.

On rounding *Cape Anapa*, vessels should not come within a mile of it, on account of a ledge of rocks which runs from its extremity to the N. W., and terminates in the bay as far as the *Landing Wharf*; thence steering to the east, until the *Landing Wharf* and the *Gate of Anapa* bear S. $\frac{1}{4}$ E. (*S. $\frac{3}{4}$ W.*), in order to avoid a rock, on which there are only 6 feet water. You should then steer for the wharf, and cast anchor in $5\frac{1}{2}$ or 6 fathoms; or you may anchor still farther to the N. W., but not so close in, on account of the rock.

Anapa Roads, being exposed from the N. W. to the S. W. to the sea-winds, which there blow very strong, is good in the summer time only. The fortress occupies the whole southern shore of the bay, which is about 850 fathoms long. The other part of the coast to the East and the North is sandy, winds round to the N. W., and is bordered by breakers. Formerly a very considerable commerce was there carried on with the *Circassians*, which consisted of wheat, rye, butter, tallow, fur, wax, and slaves.

Beyond *Anapa* there is a sandy tongue of land, about 20 miles long, extending to the N. W., and serves as a dike to the waters of the *Kouban*, which there form the large Lake of *Kizil-tache*. At an equal distance from its northern extremity and from the *Fortress of Anapa* is the *Eminence of Djiméteh*, which is about three miles long, and on which are three hillocks and the ruins of ancient edifices. A shoal is said to exist near the southern part of this tongue, and in general it would be prudent not to approach within the distance of a mile from the shore.

Between the extremity of this tongue and a sandy point of the *Island of Tamane* the *River Kouban* discharges its waters into the sea. Its mouth is known by the name of *Boughaze*, and ships arrive there through a narrow channel, in which there are successively 22, 17, 15, 5, 15, and at last 19 feet water between the two points, which are about 200 fathoms from each other. The interior of the lake, on account of the shoal water at the entrance, can only receive boats and other small craft.

STRAIT OF KERTCHE. *Cape Takli*, which forms the S. W. point of the *Strait of Kertche*, is moderately high and projecting into the sea, being bordered by a reef, which extends about three-quarters of a mile, near the edges of which there are 30 feet water. On this point is a lighthouse, noticed in page 299.

At three miles north of *Cape Takli* there is another reef of rocks, which runs about half a mile into the sea, and along the coast almost as far as the *Salt Lake*, which will be seen from the deck, over a strip of sandy land, dividing it from the sea; but beyond it the coast is safe up to the low Point and Plain of *Kamiche Bouroun*, a distance of six miles, and there is a depth of 20 feet close in-shore.

The low Point of *Kamiche Bouroun* lies 9 miles N. $\frac{1}{2}$ W. (*N. $\frac{1}{2}$ E.*) from *Cape Takli*. This point is preceded by a sort of headland, formed by some rocks which terminate in a platform, beyond which is the sandy plain to the northward. Several

salt-lakes are situated within this plain, and a small harbour at its extremity, which has lately become impracticable, on account of a *bar* accumulated at its entrance, which will shortly most probably form another salt-lake. Off the sandy point to the N. E. are 18 feet water.

AMBELAKI. Between *Kamiche Bouroun* and *Ak-bouroun*, which is the next Cape, is the *Cove of Ambelaki*, in which the water becomes much shallower, and at half a mile from the shore there are only 18 feet water. As late as 1828, ships going into the *Sea of Azov* performed their quarantine at this place; but at present they do it at *Kertche*. With the wind from the N. E. the anchorage here is very bad.

Cape Ak-bouroun is known by its white colour, and by the great number of hills on its summit. On the first projection of the Cape to the S. W. is a battery called *Pavlovskaya*, or *Paul's Battery*, to which vessels may approach very close, the depth being 21 feet; but farther on a ledge of rocks, in the shape of a tongue, and about three-quarters of a mile long, runs out from the Cape to the East (*E. by S.*) On the extremity of the reef is a black buoy, which lies with the Church of *Kertche* bearing about N. W. by N. (*N. N. W.*) Close to this ledge there are from 15 to 14 feet water.

KERTCHE. This town is two miles to the northward of *Ak-bouroun*, and the harbour is $2\frac{3}{4}$ miles broad, and 24 deep; but it is open from S. E. by E. to S. W. To enter, you must leave the Buoy of *Ak-bouroun Reef* to the larboard; the reef, however, breaks off the swell of the sea in the latter direction. At two miles and a quarter from the town there are not more than 15 feet water, at a mile and a half only 14, and 12 closer to the shore. Larger vessels, therefore, are obliged to complete their cargoes in the middle of the strait.

At the bottom of the bay there is a small point, which divides the port into two parts; on it are a church and a few buildings. Formerly a mole ran out from this point; this has now formed a bank 160 fathoms in length, in an E. by S. (*E. S. E.*) direction. That part of the harbour north of this bank is almost entirely blocked up with mud. The new lazaretto is built on a point about $1\frac{1}{4}$ mile east of the town.

YENIKALEH. The Town of *Yenikaleh* is situated on a point about 5 miles east of *Kertche*, and about $4\frac{1}{4}$ miles E. N. E. (*E. by N.*) from *Ak-bouroun*. The fortress is a little farther, on a steep coast, which gives it an excellent appearance. At $3\frac{1}{4}$ miles from *Ak-bouroun* a bank begins, which extends more than three-quarters of a mile to the south, and runs along shore as far as *Yenikaleh*. On its extremity is a buoy, which must be left on the larboard side, when rounding the point for the anchorage. Vessels can approach within one-fifth of a mile of the fortress, in about 15 feet water, where they can anchor; and here vessels from the *Sea of Azov* obtain pilots, and discharge part of their cargoes, in order to pass the shallows, which lie about S. W. by S. (*S. W.*) from the town.

At three-quarters of a mile E. S. E. (*S. E. by E.*) from the Point of *Yenikaleh*, is the central edge of a bank which lies in the middle of the channel, and is known by the name of *Rosetta Bank*. It is nearly two miles long from E. N. E. (*E. by N.*) to W. S. W. (*W. by S.*), and about half a mile broad. Its eastern extremity, on which are some rocks, is a mile and a half East (*E. by S.*) from *Yenikaleh Point*, and the west end is a mile South (*S. by W.*) from the same point. On this last is a buoy, and on the first is a floating beacon; there is also a buoy on its N. W. elbow. This bank has considerably increased in length within the last twenty years.

Beyond *Yenikaleh* the coast extends to the N. E. as far as *Cape Fanar*, or *Maiak*, which is distant about $2\frac{1}{4}$ miles. Between them the water is very shallow, even at half a mile from the shore; abreast of the Cape there are only 25 feet. Upon this point stands a lighthouse, which exhibits a bright fixed light, and may be seen from the *Sea of Azov*, at the distance of 18 miles. The town is in latitude $40^{\circ} 23' 15''$ N., and longitude $36^{\circ} 40' 20''$ E.

EASTERN COAST OF THE STRAIT. At five miles and a half west of the mouth of the *Kouban* there is a long ledge of rocks, extending out from *Cape Kichla*, which is situated at the foot of a mountain. This bank is curved towards the east, and runs out nearly two miles from shore; its extremity bearing S. E. $\frac{1}{4}$ S. (*S. S. E. $\frac{1}{4}$ E.*) from *Cape Kichla*. There are other rocks to the east of the Cape, which do not reach above half a mile from the shore. Between them and the mouth of the *Kouban* the shore is safe, and the water is deep; from this Cape to *Cape Panaghia* there are 26 feet at 350 fathoms from the shore.

Cape Panaghia is $\frac{1}{4}$ miles W. N. W. $\frac{1}{4}$ W. (*N. W. by W. $\frac{1}{4}$ W.*) from *Cape Kichla*. It is easily known by the group of high rocks which lies before it. Farther north the

shore is bordered with rocks as far as *Cape Touzla*, distant $3\frac{1}{2}$ miles from *Cape Panaghia*, and $7\frac{1}{2}$ miles N. E. $\frac{1}{2}$ E. (*E. N. E. $\frac{3}{4}$ N.*) from *Cape Takli*.

From *Cape Touzla* to the northward, a narrow strip of low land runs to the distance of 4 miles, surrounded with a *shoal bank*, $1\frac{1}{2}$ mile at its greatest breadth, extending to the N. W. about three miles farther than the sandy strip, and on the extremity there is a *buoy*, which is about three-quarters of a mile S. E. by E. (*S. E.*) from *St. Paul's Battery*. On the southern side of it there are 15 feet water. The sandy points and the little islets which lie off it, appear at times much higher than they really are, on account of the refraction.

The Gulf of *Tamane* is formed by the coast turning from *Cape Touzla* suddenly to the east, and at $4\frac{1}{2}$ miles' distance is situated the *Town of Tamane*, and the *Fortress of Panagoria*. Here, at a quarter of a mile from the shore, there are 15 feet water. Farther on is a gulf of about 10 miles in length, and four in breadth, in the middle of which there are from 12 to 16 feet water.

From *Cape Kamennoi*, the most northerly part of the coast of *Tamane*, a long strip of low land, called *Tchechka*, runs out to the S. W. It is surrounded by a bank along its whole length, turning westerly and W. N. W., passing to the south of *Rosetta Bank* at a distance of half a mile, until it reaches within the same distance of the bank of *Yenikaleh*. This extremity is marked by a *buoy*, and lies about S. W. (*S. W. by W.*) of the buoy on the *Bank of Yenikaleh*. Between the southern part of *Tchechka Bank* and *Touzla* is the passage which leads to *Tamane*; it is about a mile broad, and its deepest part, where there are from 15 to 18 feet water, bears E. S. E. $\frac{1}{2}$ S. (*S. E. $\frac{1}{2}$ E.*) from *Ak-bouroun*.

ROUTES THROUGH THE STRAIT. Being about equal distance between *Cape Takli* and *Cape Panaghia*, the depths will be from 50 to 53 feet. The course to be shaped hence is N. by W. $\frac{1}{2}$ W. (*N. $\frac{1}{2}$ W.*) towards *Ambelaki*, in order to keep in the deepest water, which will be from 55 to 25 feet. When you get the low *Point of Kerliche Bouroun* to W. by S. (*West*), steer for *Cape Ak-bouroun*, and when nearly up with *St. Paul's Battery*, you will have *Ambelaki* bearing W. $\frac{3}{4}$ S. (*W. $\frac{1}{2}$ N.*) In the first of these courses the soundings will be from 23 to 26 feet water; in the second, 22 to 21, where you will leave the buoy on the extremity of the *Touzla Bank* on the starboard side. Steering from hence E. N. E. $\frac{1}{2}$ N. (*E. N. E. $\frac{1}{2}$ E.*) towards the temple of *Yenikaleh*, you will have from 26 to 20 and 16 feet water, when the buoy on the *Tchechka Bank* will be seen on the starboard side; as also those on the *Banks of Yenikaleh* and *Rosetta*, the former to be left on the larboard, and the latter on the starboard side.

When the *Church of Yenikaleh* is brought to bear N. E. (*N. E. by E.*), and that of *Kerliche W.* by N. $\frac{1}{2}$ N. (*W. N. W. $\frac{1}{2}$ N.*), you should shape your course E. $\frac{1}{2}$ N. (*E. $\frac{3}{4}$ S.*), passing between the *Banks of Yenikaleh* and *Tchechka*, in from 16 to 14 feet water, until the *Church of Yenikaleh* bears nearly N. $\frac{3}{4}$ E. (*N. by E. $\frac{3}{4}$ E.*), or *Cape Fanar*, N. E. by N. (*N. E.*). Thence luff up, without loss of time, to the N. E. by N. (*N. E.*), which course will take you between the two *Banks of Yenikaleh* and *Rosetta*, in from $14\frac{1}{2}$ to 18 feet water, leaving the buoy on the *Yenikaleh Bank* on the larboard, and those of the *Rosetta*, as well as the floating beacon, on the starboard. On advancing towards the *Sea of Azov*, the water gradually becomes deeper; but the shore between *Yenikaleh* and *Cape Fanar* should not be approached too near, for there are no more than 12 feet water half a mile from the land.

There is a passage between the *Rosetta* and the *Tchechka Banks*, which, although quite as deep as the former, is not much frequented. To go through it, the course should be E. by S. (*E. S. E.*) from the point where *Yenikaleh Church* is brought to bear N. E. (*N. E. by E.*); but in advancing it becomes E. by N. (*East*) and N. E. by N. (*N. E.*) until *Cape Fanar* is brought to bear N. $\frac{1}{2}$ W. (*N. $\frac{1}{2}$ E.*), when you can proceed for the *Sea of Azov*, as necessity may require.

3. SEA OF AZOV.

THE SEA OF AZOV is situate between the parallels of $45^{\circ} 20'$ and $47^{\circ} 18' N.$, and between the meridians of 35° and $38^{\circ} E.$ Its length on the parallel of 46° is 25 miles, and its breadth, on the meridian of 37° , is 82 miles. The whole distance from the *Strait of Kerliche* to the mouths of the *Don*, on the two different bearings, is 168 miles.

The northern coast of this sea is generally elevated about 100 feet above the level of the water, is bold, and of a reddish colour; on its surface, which is uniform, a few

small hills may be seen here and there. Its eastern coast, inhabited by Cossacks, is very low, from the *Don* as far as *Temrouk*, mostly sandy, and intersected by lakes and morasses. Its western coast is formed by the tongue of sand called the *Tonka*, or *Tongue of Arabat*, which separates it from the *Sivache*, or *Putrid Sea*. A part of the *Crimea* and the *Island of Tamane* form the southern shore, on which here and there are some hills visible a considerable distance, and which constitute excellent marks for directing the ship's course.

The greatest depth of this sea, between *Yenikaleh* and *Bielosaria*, on the north side, is $7\frac{3}{4}$ fathoms; it diminishes considerably towards the *Gulf of Don*, and there are several banks extending a great distance from the shore. The bottom is of mud mixed with shells, generally black, but red on the eastern coast. The water is muddy, but from the quantity of river-water which flows into it, almost fresh, and may sometimes be found fit for use, as far as 20 miles below *Taganrog*.

There is no remarkable current in this sea; even with a strong north wind it does not acquire a rapidity of more than one mile per hour, and when the wind ceases, it generally takes a direction quite contrary. Navigation is interrupted from November to March, or earlier and later, according to the severity of the season, in consequence of its being frozen over. The variation of the compass within it is 8° W.

Cape Kamennoi (stony,) which runs east and west for about 3 miles, forms the eastern point at the entrance of the *Strait of Kertche*. A reef extends about a mile to the north of it, and the *Cape* itself is steep, of moderate height, and of a reddish colour. Further to the east the coast trends E. by S. $\frac{1}{4}$ S. (*E. S. E.*) for 25 miles, in which distance a great marshy plain, bordered by sands, will be observed. At the distance of 5 miles from shore the depth of water varies from 25 to 40 feet.

The *Gulf of Temrouk* extends in a S. E. $\frac{1}{4}$ E. (*S. E.*) direction, about 9 miles. At the entrance, which is only a quarter of a mile wide, is an islet, which divides the passage into two. Inside there are only 4 to 5 feet water. On the western side are the village, with a church and fortress, and a few hills. The eastern side is overgrown with great quantities of reeds.

Beyond *Temrouk* the coast is very low and sandy, turning towards the north, and forming, at 23 miles N. E. $\frac{1}{4}$ N. (*N. E.*), the *Point of Atchouief*. In this space the depths, at a mile from the land, are from 17 to 25 feet. East of this point a branch of the *Kouban* runs into the sea, which is called *Kara Kouban*, or *Black Kouban*; and at 23 miles N. by E. $\frac{1}{4}$ E. (*N. N. E. $\frac{1}{4}$ E.*) from this branch is the *Gulf of Akhti*, which is eight miles in extent in a S. E. direction. To the eastward of this gulf the land becomes a little more elevated, and two hills are seen to the N. W., off which two banks run out a considerable way into the sea. Here, at about 8 miles from the land, are only 12 and 15 feet water.

To the northward of the *Hills of Akhti* the coast again becomes low and sandy, and forms the *Gulf of Bieliesk*; farther on it becomes higher, and winds round to the N. W., where it is terminated by *Cape Kamouchevat*, from which extend a sandy point and a bank in a S. E. by S. $\frac{1}{4}$ S. (*S. S. E.*) direction. At five miles from the shore there are from 12 to 13 feet water.

GULF OF DON. At 12 miles N. N. W. $\frac{1}{4}$ W. (*N. N. W.*) from *Cape Kamouchevat* is situate *Cape Obriv*. There is a small hill at $3\frac{1}{4}$ miles to the southward of it. From this *Cape* two banks run out; the first, called *Helena Bank*, extends 15 miles to the west; at 4 miles from shore there are about 10 or 12 feet water on it, and from thence to the extremity it increases to 39 feet. At about 12 miles from the shore there is a red and white flag, which points out 15 feet water.

The second is the *Dolgoi Bank*, on which there are a sandy point and several islands; it runs out more than 14 miles to the N. W., curving towards its extremity in the shape of a tongue. The greatest breadth of this bank is $1\frac{1}{4}$ mile; it is formed of mud, mingled here and there with shells, and on its edges there are from 13 to 20 feet water. On the sandy point, as on all other similar points in this sea, there are some fishermen's huts. A cutter, bearing a red flag, is placed at the extremity of this bank in 19 feet water.

It may be here proper to observe, that although the situation of the beacon-flags placed at the extremity of the banks in this sea, may be occasionally changed, the red flags always denote the south side, and the blue flags the north.

Beyond *Cape Obriv* the coast trends eastward for the distance of 20 miles to the *Gulf of Gheisk*, which runs inland for about 12 miles to the E. by S. $\frac{1}{4}$ S. (*E. S. E.*), and is about 5 miles broad. Its entrance is open to the north, and forms an excellent anchoring-place for boats and other small craft which do not draw above 5 feet water.

Before the entrance, and to the east of the *Gulf of Gheisk*, are several banks, one of which, *Morskije Ostrova* (Mariner's Isles,) has received its name from three slets of sand, to which the mirage often gives a very considerable appearance. From the entrance to *Gheisk* they bear N. N. W. $\frac{1}{2}$ W. (*N. by W. $\frac{3}{4}$ W.*) The bank which surrounds them extends about $8\frac{1}{2}$ miles to the N. W. $\frac{3}{4}$ W. (*N. W.*); its greatest breadth, which is towards the north, is $2\frac{1}{2}$ miles; there are from 9 to 13 feet water on it, and from 12 to 14 near its edges; at its extremity, in 17 feet, is a buoy, bearing a red flag.

At 25 miles N. E. by E. $\frac{1}{4}$ E. (*E. N. E.*) of the *Gulf of Gheisk*, is the small point of *Cape Tchoulbar*, situated to the N. E. of two hillocks, and on which the *Village of Margaritovka* is built. From the base of it, the *Gretcheskoi*, or *Greek Bank*, extends about 7 miles to the N. W., and 19 to the East, as far as the mouth of the *River Don*. Upon it there are from 5 to 15 feet water, and at its N. W. extremity, where there are 16 feet, a cutter is moored, bearing a red flag.

RIVER DON. The *Don* runs into the sea by several mouths, separated from each other by bars of sand and a number of small islets. Two or three of these mouths can receive small craft; but the depth in them varies considerably at times, and those who frequent them are often obliged to trace a new channel: however, the *Kalancha* mouth has for some years been used by coasters, but may by this time have undergone some change.

The **Town of Azov**, (*Turkish, Azac*;) situate on the southern branch of the *Don*, is at present a place of no importance.

From the mouth of the *Don*, the northern coast runs nearly west for four leagues, thence turning to the south, and forms, by its winding, a little gulf, into which the *River Sambek* runs, and in which there are only from 2 to 6 feet water. At its western extremity is the *Cape*, on which the *Fortress of Taganrog* stands, about 15 miles from the *Don*. Its coast is steep, and of a reddish colour. Here is a small harbour, about 400 fathoms long, and 180 broad, built in the reign of Peter the Great, in which there are now no more than 3 and 4 feet water. The lighters used for loading and unloading ships in the roads are anchored in a little cove, bordered with storehouses, to the east of the *Cape*. The water in the roads being so very shallow, these lighters cannot approach the vessels, but have their cargoes taken aboard in carts or waggons, which have to go a good distance to the sea. Three-quarters of a mile south of *Taganrog* is an islet, composed of sand and pebbles, called *Tcherepakha*, about 550 fathoms in length, and 275 broad.

Taganrog Roads are about 12 miles in extent, and are bounded on the west by the *Bank of Petrouchina*, which begins about $4\frac{1}{2}$ miles west from the town, and runs out S. $\frac{1}{4}$ W. (*S. by W.*); about 8 miles. With a south or west wind the water becomes deeper, while a north or east wind causes it to lose 2 or 3 feet in depth, and sometimes so much, that persons may walk to *Tcherepakha*, so that, as may be imagined, vessels are much inconvenienced at this place; the bottom is generally of mud, excepting here and there it is of sand.

It is said that the depth of water has diminished here, since the foundation of *Taganrog*, about 3 feet. In the reign of Peter the Great, and as late as Catharine II., the Russians had a fleet of flat-bottomed line-of-battle ships on the *Sea of Azov*.

The *Lazaret* of *Taganrog* is three miles west of the town. From hence are exported wheat, iron, butter, rope, tar, wax, copper, caviare, tallow, hemp, canvass, &c. The principal articles of importation are wine, dried fruits, and oil. Ships laden with goods subject to quarantine are not permitted to enter the *Sea of Azov*.

MARIOUPOL. At 58 miles to the west of *Taganrog* is the *Town of Marioupol*, between which the shore would be nearly straight, but for the projecting low sandy points of *Petrouchina*, *Zolotoi*, and *Krivoi*, extending to a great distance south from the shore, at the extremities of which blue flags are placed, so as to be distinguished from those on the opposite shore, which, as already noticed, are red.

The flag on the *Petrouchina Bank* is in 15 feet water, and bears S. 30° W. from *Cape Taganrog*; S. $10\frac{1}{2}^{\circ}$ W. from *Cape Petrouchina*; and N. 7° E. from the *Church of Margaritovka*. The passage between this and the *Gretcheskoi Bank*, on the opposite shore, is a mile and a half broad; and the red flag on the extremity of the latter bears nearly West from that of *Petrouchina*, distant about $3\frac{1}{2}$ miles.

At six miles West from the red flag on the *Gretcheskoi Bank* is the blue one of the *Zolotoi*, or *Golden Bank*, which is terminated in a sharp point. It bears S. 57° W. from *Cape Taganrog*; S. 12° W. from the *Windmill of Toursov*; S. 20° E. of the *Village of Dmitrievka*; and (S. 31° E.) from the east point of the *River Mious*.

At 24 miles W. $\frac{1}{4}$ N. (*W. by N.*) from the *Zolotoi*, and $9\frac{1}{2}$ miles N.W. $\frac{1}{4}$ N. (*N. W. by N.*) from the *red flag* of the *Morskie Ostrova*, is the *blue flag* of the *Krivoi* (crooked) *Bank*. It bears S. 58° W. from the fishing station on *Cape Krimia*; S. 10° W. from the *River Elantchik*; S. 1° E. from a *hillock*; and S. 21° E. from a *farmhouse* seen in the country.

The *Town of Marioupol* is situate at 22 miles to the west of *Point Krivenia*. Its roadstead is exposed from S. W. by the South to East, in which there are from 15 to 16 feet water, at $1\frac{1}{2}$ mile from the shore. The *River Kalmious*, which runs into the sea east of the town, can receive only small craft and boats. A great quantity of wheat is exported from this place.

Beyond *Marioupol* the coast trends to the S. W. $\frac{3}{4}$ S. (*S. W.*) for $9\frac{1}{2}$ miles, where a low sandy point extends 7 miles farther in the same direction. The depths along it are 16 and 18 feet water close in-shore. Upon this sandy point are some fishing-huts, and near its extremity is the present *lighthouse*, which exhibits a light visible at the distance of 16 miles; the old light-tower being situate about 7 miles to the N. E. From off this point a *shoal* extends about $2\frac{1}{2}$ miles in the direction of the point, on which are from 11 to 15 feet water, with 15 to 18 on its edges. North of this point, and west of the old light-tower, a ravine may be remarked, in which stands the *Village of Alti*, and there are two others farther west. Latitude of the lighthouse $46^{\circ} 53' 30''$ N., and longitude $37^{\circ} 23' 0''$ E.

The coast then turns to the W. S. W. $\frac{3}{4}$ S. (*W. S. W.*), and is terminated at $21\frac{1}{2}$ miles' distance by *Cape Berdinkha*, which is preceded by a small bay, choked up with sand, into which the *River Berda* runs, and where, on the east coast, the *Fortress of Petrovskaja* is seen. This *Cape* also has a sandy point above water, which extends $11\frac{1}{2}$ miles to the S. W.; but there are from 16 to 25 feet water very near to it. The whole of these sandy points being extremely low, should not be approached without the greatest caution, especially when, on account of thick weather, the adjacent high land cannot be distinguished. West of it there is a good place for anchorage, which is used by vessels bound for *Tuganrog*, and meeting with contrary winds. Here two ravines will be seen, through the east of which the *River Berdinkha* flows. On the eastern bank of this river a town has lately been founded.

Westward of *Berdinkha* the coast winds in the same manner, until again terminated by a point called *Vizarounof*, which is 19 miles S. W. by W. $\frac{1}{4}$ W. (*W. S. W. $\frac{1}{4}$ W.*) of the former, and here extends a point of sand $11\frac{1}{2}$ miles to the S. W. $\frac{3}{4}$ S. (*S. W.*). Like to that of *Berdinkha*, the sea is clear around it, but not quite so deep. East of this *Cape* there are five hillocks, called *Princes' Hills*; there is another away to the west of the *Cape*, and also one 9 miles north of it, called *Semiramis*.

CAPE FEDOLAVA is 37 miles S. W. by W. $\frac{1}{4}$ W. (*W. S. W.*) from *Point Vizarounof*, between which there are three ravines, similar to *Cape Berdinkha*. *Cape Fedolava* is preceded to the east by a sandy bay, into which the little *River Molotchनावоди* runs. Here is a sandy point stretching out 10 miles to the S. W. $\frac{3}{4}$ S. (*S. W.*), and is separated only by a narrow channel from the low *Isle Virioutchei*, which is about 13 miles long, in a S. W. and W. S. W. direction. The depths, at a mile from the shore, vary from 14 to 23 feet. The bay on the west of the point has not water enough to be practicable.

At 9 miles W. N. W. $\frac{1}{4}$ N. (*N. W. by W.*) of the *Isle Virioutchei*, and $6\frac{1}{2}$ miles S. by W. $\frac{1}{4}$ W. (*S. S. W.*) from two hillocks, is the *Strait of Yenitchi*, which establishes a communication north of the *Tonka*, between the *Sea of Azov* and the *Sivache*, or *Putrid Sea*; it is pretty deep, and about 60 fathoms broad.

THE *SIVACHE*, or *PUTRID SEA*, is divided into two irregular gulfs or branches, one of which runs west to the *Isthmus of Perecop*; and the other, called *Birkess*, extends to the S. E. towards the *Bay of Theodosia*, and receives the waters of several rivulets from the *Crimea*. The whole of this sea appears, at present, to be utterly impracticable, even for boats.

THE *TOUKA*, or *Sandy Tongue of Arabat*, separates the *Gulf of Birkess* from the *Sea of Azov*; it is very narrow, but 52 miles long, extending South and S. S. E. The shore on the east side, which is of sand, is almost of an even line. On the other side, however, towards the gulf, its shore is of vegetable earth, and its breadth is very irregular, the narrowest parts being about half a mile across. Along the shore, on the eastern side, there are from 14 to 22 feet water, at a mile from the land; bottom of sand and shells.

Near the southern part of this tongue is the ancient *Fortress of Arabat*, situated at the bottom of a little bay open to the North and N. E., in which there are 19 to 24 feet water, muddy bottom.

The sandy coast terminates at *Arabat*, and at 18 miles N. E. $\frac{1}{4}$ E. (*N. E. by E.*) from this fortress the *Cape Kezandibi* forms a little peninsula, curving to the N. W.; it is pretty high, with a steep shore, so that at the distance of a mile there are 34 and 6 feet water, muddy bottom. East of this *Cape* there is a *bay*, which goes by the same name; it is about 9 miles broad and $5\frac{1}{2}$ deep, bounded on the east by *Cape Zloukhoi*, and has from 19 to 30 feet water in it. On *Cape Kezandibi* are the remains of some ancient edifices.

Farther on the coast runs 10 miles eastward to *Cape Tchalva*; then 13 miles S. E. $\frac{1}{4}$ S. (*S. E. by E.*), and, lastly, 4 miles S. E. $\frac{3}{4}$ E. (*S. E.*) to *Cape Fanar*, or *Lighthouse Cape*, which we have described in page 310.

ROUTE FROM THE STRAIT OF KERTCHE TO TAGANROG.

The general course, after having passed the *Strait of Kertche*, is N. by E. $\frac{1}{4}$ E. (*N. N. E.*) towards *Cape Bielosaria*, distant 92 miles. On this course the water gradually deepens from 20 to 45 feet, and after diminishes to 30. As far as 62 miles the bottom is of mud, and farther north of mud and sand. If the vessel runs to the eastward of this track the water becomes shallower, and approaching the shore, the lead brings up reddish shells; but if to the westward, the bottom is still of mud, but the water is deeper.

Having passed the parallel of *Cape Kamouichevat*, and being in about 37 feet water, care must be taken not to steer too much to the east for fear of getting on the *Helena Bank*. Indeed the fear of this, and of being drawn on to the low eastern coast by strong N. W. winds, which are pretty frequent in this sea, induces many masters to steer N. $\frac{3}{4}$ E. (*N. by E. $\frac{1}{4}$ E.*) for the *Fortress of Petrovskaiä*. Being east of the most advanced point of *Cape Berdinka*, steer due E. $\frac{3}{4}$ N. (*East*), until the *Village of Altı* bears N. $\frac{3}{4}$ W. (*North*); you will then be in the first passage of the *Gulf of Don*, between the *Banks of Bielosaria* and *Dolgoi*, which are about 13 miles apart. Then steer N. E. $\frac{3}{4}$ N. (*N. E.*) until the lighthouse on *Cape Bielosaria* is brought to bear W. $\frac{3}{4}$ S. (*West*), distant 8 or 9 miles, when you again take an E. $\frac{3}{4}$ N. (*East*) course, going right through the second passage between the *Banks Krivoi* and *Morskıe Ostrova*, which bear S. E. $\frac{1}{4}$ S. (*S. E. by S.*) and N. W. $\frac{1}{4}$ N. (*N. W. by N.*) from each other, distant about 10 miles. Continue this course for 45 miles, up to the *blue flag* on the extremity of the *Zoltoi Bank*, passing through a depth of water from 29 to 20 feet.

When this flag is brought to bear N. by W. $\frac{3}{4}$ W. (*N. by W.*), distant about 2 miles, steer N. E. $\frac{1}{4}$ E. (*N. E. by E.*), which course will take you through the third passage between the *Zoltoi* and the *Gretcheskoi Banks*, the extremities of which bear *East* and *West* of each other, with a depth of 16 and 18 feet water. The signal on the *Gretcheskoi Bank* bearing S. $\frac{3}{4}$ E. (*South*), distant one mile, shape your course S. E. by E. $\frac{1}{4}$ E. (*S. E. $\frac{1}{4}$ E.*), and when the *blue flag* on the *Petrouchina* bears N. $\frac{3}{4}$ W. (*North*), steer to the N. N. E. $\frac{1}{4}$ E. (*N. E. by N.*), and you will run into *Taganrog Roads*.

On returning to the STRAIT OF KERTCHE, it is always advisable to keep a little to the west, so as not to be exposed to the risk of being embayed on the low shore to the east, which is not visible at half the distance, as the opposite shore on the coast of the *Crimea*. On this coast there are three mountains, which will assist to direct the course; two about 6 miles to the W. by N. $\frac{1}{4}$ N. (*W. N. W.*) of *Cape Fanar*, the third being the *Cape* itself, which, seen from a distance, seems separated from the rest of the coast.

SAILING DIRECTIONS AND GENERAL REMARKS. Vessels leaving the *Port of Constantinople* for the *Black Sea*, will follow the directions already given for passing the *Bosphorus*; and having entered the *Black Sea*, the bearings and distances from midway, between the two lighthouses, to the different points and harbours, will be as follow:

To the entrance of the <i>Gulf of Bourgas</i> , N. W. $\frac{1}{4}$ N. (<i>N. N. W. $\frac{3}{4}$ W.</i>)	33 leagues.
the entrance to the <i>Gulf of Varna</i> , N. N. W. $\frac{1}{4}$ W. (<i>N. by W. $\frac{1}{4}$ W.</i>)	42 "
<i>Cape Kaliakri</i> , or <i>Calaghriah</i> , N. by W. $\frac{1}{4}$ W. (<i>N. $\frac{1}{4}$ W.</i>)	43 "
off the <i>Souline Mouth of the Danube</i> , N. $\frac{1}{4}$ E. (<i>N. N. E. $\frac{1}{4}$ N.</i>)	80 "
the entrance of the <i>Dniester</i> , N. $\frac{3}{4}$ E. (<i>N. N. E. $\frac{1}{4}$ N.</i>)	100 "
<i>Odessa Lighthouse</i> , a fixed light, N. by E. (<i>N. N. E.</i>)	105 "
<i>Tendra Island Lighthouse</i> , a revolving light, N. by E. $\frac{1}{4}$ E. (<i>N. N. E. $\frac{1}{4}$ E.</i>)	108 "
<i>Turkan Lighthouse</i> , a fixed light, N. N. E. $\frac{1}{4}$ E. (<i>N. E. $\frac{1}{4}$ N.</i>)	96 "
<i>Euphatoria</i> , or <i>Koslov</i> , N. E. $\frac{3}{4}$ N. (<i>N. E. $\frac{1}{4}$ E.</i>)	99 "

To <i>Chersonessus Lighthouse</i> , a fixed light, N. E. $\frac{1}{2}$ E. (N. E. $\frac{3}{4}$ E.).....	90 $\frac{1}{2}$ leagues.
<i>Cape Aitodor</i> , N. E. $\frac{1}{2}$ E. (E. N. E. $\frac{3}{4}$ N.).....	93 $\frac{1}{2}$ "
the <i>Gulf of Theodosia</i> , or <i>Kaffa</i> , N. E. $\frac{1}{2}$ E. (E. N. E. $\frac{3}{4}$ N.).....	119 "
the entrance of the <i>Strait of Kertsche</i> , N. E. $\frac{3}{4}$ E. (E. N. E. $\frac{1}{2}$ N.)...	132 "
<i>Amasserah</i> , E. by N. $\frac{1}{2}$ N. (E. $\frac{1}{2}$ N.)	49 "
<i>Penderuklia</i> , E. $\frac{1}{2}$ N. (E. $\frac{3}{4}$ S.).....	34 "
From <i>Odessa</i> to <i>Chersonessus Lighthouse</i> , <i>Sevastopol</i> , S. E. (S. E. by S.)	52 "
<i>Chersonessus Light</i> to <i>Sinope</i> , S. S. E. $\frac{1}{2}$ E. (S. by E. $\frac{1}{2}$ E.).....	57 "
<i>Sinope</i> to the <i>River Rione</i> , East nearly (E. by S. a little easterly) ...	96 "

The *European or Western Coast of the Black Sea*, with the exception of *Bourgas, Iniada*, and the bay between the *Bosphorus* and *Cape Calaghriah*, affords few places of complete safety during winter; it is therefore advisable at that season to keep well out to sea. The *Ports of Sevastopol, Koslov, Balaklava, and Kaffa*, in the *Crimea*, are much more secure, and of easier access. *Sevastopol* will readily be known by the lighthouse on *Cape Chersonessus*. *Koslov* may be recognised by the great mosque, with a dome at its summit, and by its bearing from *Chersonessus Light* N. $\frac{1}{2}$ W. (N. $\frac{3}{4}$ E.), distant 11 leagues. *Balaklava* is distinguished by the land of *Cape Aitodor*, which is bold and lofty, (but this port is closed against all vessels, as noticed in page 297;) and *Kaffa* by its position, and the appearance of *Cape Theodosia*. Vessels bound to the N. E. and the *Sea of Azov* will see the southern shore of the *Crimea* 20 leagues off in clear weather. The coast from *Sevastopol* is bordered with high mountains, rising abruptly towards their summits; and, as you advance towards *Kaffa*, *Cape Theodosia* appears insulated, forming two bays, one on the east, the other on the west: the harbour is of easy access, and sheltered from all wintry winds. Here, if you are bound to the *Sea of Azov*, you should obtain a pilot. The winds prevalent during the months of May, June, July, and August are from E. N. E. to S. E.; you should therefore, when bound to the *Sea of Azov*, steer well to the eastward, so as to make the high land over *Anapa*; by so doing, you will expedite and make good your passage, when other vessels, steering direct for the *Crimea*, will lose it. This is the general practice of the best Greek Captains, and that which has been proved to be correct by experience. The winds that prevail in the *Black Sea* in winter are less violent than in summer; and those which proceed from the northern coasts, dissipate the fogs, and (unless from the N. W.) bring generally, though not in all parts, clear weather, and starlight nights.

In proceeding for *Odessa* and the *Northern Coasts of Nicolaiev*, it is requisite to sound frequently, and to observe the currents which sometimes run with rapidity into the *Gulf of Kerkinet* towards the low coast of *Perecop*. Between the *Danube* and the *Berezane* the general depths, at 5 leagues from the shore, will be from 11 to 20 fathoms; but as you advance to the northward, you should not go into a less depth, or you may get on the *Bank of Odessa*. The bottom is sand and ouze with shells: these latter, as you get further from land, become large, and are observed to diminish in size as you approach the shore.

S. S. E. and S. W. winds, which are very common during January, February, and March, are considered to be very favourable to the navigation; for with a wind that a vessel may lie well to her course, and a good breeze, it requires only 40 or 50 hours to go from the *Crimea* to *Constantinople*. On returning towards the *Bosphorus*, be careful to make a large and proper allowance for these southerly currents, which so frequently have deceived vessels in the night, and during foggy weather, by drifting them on shore; and take great care not to mistake any lights you may see on shore for the lights at the entrance of the *Bosphorus*. It is advisable, when coming from the *Crimea*, to make for the western side of the channel, that being the highest land; for you will commonly find yourself set by the easterly current to the eastward of your course. When mid-channel, at the entrance of the *Bosphorus*, your soundings will be mud; if to the westward, white sand, with black specks and small stones; but if to the eastward, white sand and broken shells. The current will frequently carry a vessel from the entrance of the *Bosphorus* to the *Point of the Scraglio* in two hours, or even less.

THE ISLAND OF RHODES,

AND THE COAST OF ASIA MINOR, FROM THE BAY OF MARMORICE
TO THE GULF OF ISKENDEROON.

—
Variation One Point West.

1. THE ISLAND OF RHODES.

RHODES is a large island, lying between the latitudes of $35^{\circ} 52'$ and $36^{\circ} 28'$ N., and longitudes $27^{\circ} 40'$ and $28^{\circ} 15'$ E., being rather more than 13 leagues in length from N. E. to S. W., and about 4 leagues in breadth. Nearly in the centre of the Island is *Mount Artemira*, whose summit commands a most extensive view over the whole island, with the seas and coasts adjacent. Beneath is a tract of lower hills, the land descending gradually towards the sea, and forming a series of plains, watered by numerous rivulets.

The *Town of Rhodes* stands at the north-eastern part of the island, and the *mole* is situated in latitude $36^{\circ} 26' 53''$ N., and longitude $28^{\circ} 12' 51''$ E.: when seen from a distance, it still presents vestiges of its former importance; but on entering the town, very little is found to correspond. The *City* itself does not now occupy one-fourth part of its former dimensions; though the walls remain, and bear the marks of great strength and solidity. On the outside of these walls is a fosse or ditch, 70 feet wide, but now dry. The *Church of St. John*, and also another church, the palace of the Grand Masters, and a convent, are still in existence; but the churches are converted into mosques, and the hospital is used by the Turks for a granary.

Vessels coming from the north-westward, and passing between the *Island of Piscopi* and *Cape Crio*, will, immediately on turning round *Cape Crio*, discover the high lands of *Rhodes*: on approaching towards the island, the villages situated on its northern side will rise in view, and the town becomes visible at a considerable distance. First, you will perceive a number of windmills; advancing nearer, the city, castle, and fortifications will open to your view; and as you approach towards the entrance of the bay, your attention will be attracted by the two towers fortified with cannon; between these stands the square *Castle of St. Nicholas*, with four turrets, one at each corner, and a fifth in the centre, which now serves for a *lighthouse*. Near the landing-place is an antique circular Grecian altar, now used by mariners as a hold-fast for their cables.

Rhodes has two harbours; the larger one, *Ters Haneh*, or the *Arsenal*, is situated to the northward; the lesser one named the *Porte*: they are close alongside of each other, being separated by a sort of *mole*, having several mills upon it, and at its end the *lighthouse* and *fort*; in the *Ters Haneh* is a dockyard.

Vessels bound to *Karamania*, *Syria*, and *Egypt*, generally touch at this island for pilots or for intelligence. Ships coming in from the westward, may haul round *Point Molinos*; for though it is a low spit of sand, the constant westerly current keeps it clean: there are 20 fathoms water within a cable's length of the point, and at three-quarters of a mile to the northward, 160 fathoms. From the point of land next southward of *Point Molinos*, a rocky reef extends about $1\frac{1}{2}$ cable's length to the north-eastward: in the centre of this reef is a rock level with the water's edge; upon it is the broken shaft of a column. On the next point is a *lighthouse*: the light is not very brilliant, but it is sufficiently distinct from the lights in the town to enable a stranger to take an anchoring berth in the road. On a point to the southward of this stands a square tower, white-washed, and named the *Arab's Tower*: this building is 153 feet high, and is used as a prison for state-prisoners from *Constantinople*; it also serves for a good look-out from the S. S. E. (*S. by E.*) to the W. by N. (*W. N. W.*) East (*E. by S.*) from the *Arab's Tower*, distant 320 yards, is *Point Kandia*, off which there are a few detached rocks above water: a large patch of foul ground extends three cables' length to the eastward. To avoid this shoal, in casting off from the anchorage in the road, keep the small mosque open to the northward of *Lighthouse Point*, until the end of a ridge of low black rocks to the southward bears S. S. W. (*S. W. by S.*): the eastern shore of the island will then be open. The most convenient berth in the

outer road for a large ship is in 21 fathoms, the *lighthouse* bearing S. by W. (S. S. W.), distant about three cables, and the *Arab's Tower* S. W. by S. (S. W.) This, however, would be too close in for a winter's berth; for strong north-easterly winds come on very suddenly; and as it is then necessary to weigh anchor immediately, there would be a *shoal* to weather on either tack. The bottom is in general a loose sand, though here and there are spots of tougher holding ground. The current in the road sometimes sets to the southward, and sometimes towards *Molinos Point*; but northward of the island, in what is called the *Channel of Rhodes*, it invariably runs to the westward.

Of the inner harbours, that called *Ters Haneh* is solely appropriated to vessels belonging to the reigning Bey. It has two transverse piers in a ruinous state; and in the narrow entrance between them are only 8 or 9 feet water, although within side are 3 fathoms. The entrance of the *Southern Harbour*, or *Port*, is between the *Arab's Tower* and *Point Kandia*. It is generally full of merchant vessels, which moor with a hawser to the quays, and an outer anchor, in 4 or 5 fathoms; but a north-east wind commonly sends in a heavy sea. This harbour has also a transverse pier, with an opening at each end: but that part of it is very shallow. There is a convenient fountain for watering.

There are said to be several ports of small dimensions, used by coasting vessels, on the eastern and also on the western side of the *Island of Rhodes*; but these are little known. About 7 leagues to the south-westward of the *Town of Rhodes* is *Lindo*, situated at the foot of a high mountain, and at the further end of a bay of that name. There is a *fortress* on the southern point of this bay, called *Fort St. Nicolo*, which defends the roadstead; under the protection of this, vessels may occasionally anchor in from 12 to 8 fathoms, opposite to the small village of *Messara*. To the north-eastward of *Lindo*, about 8 miles, is *Mount Madonna*; and about 5 miles to the southward of *Lindo* is *Cape St. John*, a bluff point, projecting into the sea, and surrounded by rocks under water. S. E. by S. (S. S. E.), distant $1\frac{1}{4}$ mile from *Cape St. John*, is a small rocky islet, called *Telapoli*; it is clean all round, and vessels may go between it and the *Cape* in safety; but the outer passage is usually chosen. S. W. by W. (W. S. W.) from *Cape St. John* is the *Island of St. Catharine*, lying off the southern extremity of the *Island of Rhodes*, between which is a narrow passage: there is also a rocky islet to the northward of this island; and to the northward of *Cape Tranquillo* are the two *Isles of Guardia*. Other islands lie off the western shores of *Rhodes*, the most considerable of which are those of *Karki* and *Limonia*; these are situated two leagues off the island, and directly in the passage between it and *Piscopei*. A great many other islets lie scattered about *Karki* and *Limonia*, but the passages are clear from danger.

2. THE COAST OF ASIA MINOR.

MARMORICE AND KARAGATCH. About 20 miles to the eastward of the southern point of the entrance to the *Gulf of Symi*, and 16 miles N. by E. (N. N. E.) from the *Town of Rhodes*, is the entrance to the *Bay of Marmorice*, and to the eastward of that is *Karagatch*, being divided from each other by an isthmus nearly 3 miles broad. *Marmorice* is most convenient for a fleet, but *Karagatch* is more easy of access: the bottom in both is a remarkably tough clay. Good water, fire-wood, and heath for brooms may be procured in any quantity; but the large trees, which are seen on the distant hills, would with difficulty be conveyed to the water-side. Supplies of beef and poultry may readily be obtained at *Marmorice*; but at *Karagatch* the inhabitants shew great reluctance to part with their cattle.

In making the *Harbour of Marmorice*, you must be careful not to mistake the low isthmus at the S. E. part of the harbour for the entrance. The best way to avoid this, is to get sight of the *Islet Barbanicolo*, which lies north from *Rhodes*, and looks like a white cliff on the main; from this you can work round *Cape Marmorice* to the entrance, which is divided into two channels by an islet, but the eastern one is the best. In this passage there are 26 to 11 fathoms, steep on both sides, and about two cables in breadth.

At N. E. $\frac{1}{2}$ E. (N. E. by E. $\frac{1}{2}$ E.), distant six miles from *Cape Marmorice*, is a high point of land, between the *Harbours of Marmorice* and *Karagatch*, half a mile to the southward of which is a reef, with very little water on it; and about a mile to the westward, close in-shore, are a few rocks, some of which are above water. Half a league E. by S. (E. S. E.) from the point is the small *Island Linosa*, or *Kara*,

lying South (*S. by W.*) 3 miles from the centre of the entrance to *Karagatch Harbour*: the entrance is about a mile across, and on its western side are some rocks above water, with other rocks near. Being within the harbour, you may steer to the westward or eastward, as you may think fit.

MAKRY. E. by S. (*E. S. E.*) from *Cape Marmorice*, distant 10½ leagues, and E. by N. ¼ N. (*E. ¼ N.*) from the *Town of Rhodes*, distant 12 leagues, is the entrance of the *Gulf of Makry*. It is said another deep harbour is situated somewhere between *Karagatch* and *Makry*; but the particulars are at present unknown. The *Gulf of Makry* may readily be discovered by the mountainous tract to the southward. The entrance is 6 miles wide, and the eastern side is bold and steep-to, till you approach the inner harbour to the S. E., and within a mile to the west of the little *Island Cavalieré*, where there is a ledge of rocks near the shore, with only 4 feet water upon it. The harbour is excellent, being capable of containing a considerable number of vessels of all sizes, and having every where good anchorage on a bottom of mud and sand. The town on the beach is small, but the surrounding country is highly productive; and at a village, about 4 miles inland, cattle, poultry, vegetables, and fruit may be had at all times. There are various watering-places in the Gulf, and firewood may be hewn close to the shore. On the northern and on the western sides of the Gulf are several islands, and the extensive *Gulf of Scopea*, which is said to afford good anchorages, with wood and water, if required; but these are little known. To the southward of *Makry*, and on the south side of the peninsula, which is terminated by *Cape Iria*, there are some snug creeks for small vessels, but not of sufficient consequence to require description.

From *Cape Iria* to the northernmost of the *Seven Capes* the course is S. S. E. ¼ E. (*S. by E. ¼ E.*), and the distance nearly 4 leagues; from thence the land turns S. E. ¼ E. (*S. E. ¼ S.*), forming seven points, which are the extremities of high and rugged mountains, occupying a space of 10 miles: these rise up to a very great height, and the most northern is 5490 feet above the level of the sea. *Anti-Cragus Mountain*, near to it, is still more lofty, its summit being 5940 feet high. Those to the southward are 3000 and 3300 feet in elevation. Small coasting vessels, beating to the westward, frequently anchor in the southerly creeks hereabout, when the sea-breeze is strong; and from hence to *Cape Khilidonia* they work in-shore, for the advantage of the current.

From the *Seven Capes* a sandy beach extends to the south-eastward; and near its extremity are the *Ruins of Patara*, before you come to which, the *River Eichen Chay*, after winding through an extensive valley, falls into the sea.

KALAMAKI BAY is about two miles to the eastward of *Patara*, and has a most gloomy and forbidding appearance. There are two rocky islands in the offing, called *Okhendra* and *Volos*. The shores of this bay are safe; yet the great depth of water throughout, and the unfavourable position of the above islands for affording shelter, render it a most inconvenient anchorage. Large polaccas, that touch here to make up their cargoes of corn, moor to the shore in the N. E. cove; and small coasters occasionally haul inside the rocks on the S. W. side of the bay. Good water may be obtained, but the supply is limited. From *Kalamaki Bay* the land runs eastward to *Port Vathy* and *Sevedo*; the shore is high and rugged, with several barren islands before it. The two largest of these are *St. Georgio* and *Kastelorizo*: the first is bold all round, with a creek of deep water on its southern side; and on the northern side is a small bay, with a sandy beach. Ships proceeding along-shore towards the *Gulf of Kastelorizo*, with a leading wind, generally take the N. W. entrance. If they pass between *St. Georgio* and the main, they must avoid a sunken rock, on which there are but 8 feet at low water, and which lies at the distance of rather more than a mile from the shore. To pass to the southward of this rock, keep the outer *Phournaki* shut in with *Okhendra*, until *Tragonera* comes 'one point of the compass open of *Kastelorizo* Islands. Another rock is stated to lie about midway between *Kastelorizo* and *St. Georgio* Islands; but the exact position of this danger is not ascertained.

PORT VATHY lies to the northward of the *Island of Kastelorizo*, being a long and capacious harbour; but the water is so deep in the outer portion of it, and so tedious is the access to its upper end, from its narrow form, and the baffling of the wind, that it is ill suited to the purpose of any temporary anchorage: it may, however, serve as a safe retreat in a S. W. gale, and would answer well either to repair damages, refit a prize, or shift a cargo. Two small rocks lie in the middle of

the entrance; but these are above water, and may be passed on either side within half a cable's length.

PORT LONGOS is a common anchorage for all sorts of vessels, and distinguished by a little island on its southern side. It lies on the south side of the narrow peninsula which separates *Port Vathy* from the *Gulf of Kastelorizo*.

PORT SEVEDO is situated in the N. E. corner of the *Gulf of Kastelorizo*, and is inconveniently deep in the middle; besides which there is a *reef*, which extends about a cable's length to the north-eastward of the point which forms the entrance; but in every other respect it is an excellent harbour, easy to enter, and affording perfect shelter. From the head of this harbour a tongue of land projects like a *pier*, at the extremity of which there are 5 fathoms close alongside the *rocks*. This tongue of land appears to present every facility for a vessel of any size to heave down. Ships may ride at their anchors, or moor securely, with hawsers to the shore; there is a clean beach, on which boats may be hauled up; and should the inhabitants be friendly, it will be found a commodious port for refitting.

KATELORIZO. The *Island of Kastelorizo* is the largest and loftiest on the coast. On its north-eastern side are the *harbour and town*. The harbour may be readily entered by keeping about mid-channel, and leaving a cluster of *islets and rocks* to the eastward. The harbour, though small, is snug; and merchant vessels can moor within a hundred yards of the town. Small craft haul close in; and on the other side of the harbour, vessels of considerable burthen lie so close to the shore, that the communication only requires a single plank. On the outside of the harbour some small low islands form a convenient and well-sheltered road, with a bottom of sand and mud. The plain way in and out is between the *Islands Polyphidous and Agrielaia*; but if any circumstance should render it necessary, a safe, though a very narrow, channel will be found close to the westward of *Polyphidous Island*, with 4 fathoms water. This road is commanded by a small *castle* on the *red cliff* over the town, and a few cannon on its battlements. Dispersed in the *Gulf of Kastelorizo* are upwards of twenty *rocks and islands* of various dimensions; some of these are high, and some only just above the water. All of them may be approached within a reasonable distance, except the small round *Island of Prassoudi*, from which a *reef* extends about a cable's length to the north-eastward; but at 2 cables' distance S. E. by S. (*S. S. E.*) from it, is a small patch of *rocks* about 40 yards long, and with rather less than 2 fathoms over them. It will be imprudent to pass to the northward of it, on account of the currents, which are very uncertain both in strength and direction.

HYPSILI is a small island, situated about $2\frac{1}{4}$ miles from *Kastelorizo*. From the south end of *Hypsili* to *Toogh Bournoo*, on the main land, the bearing and distance are E. N. E. $\frac{1}{2}$ N. (*E. N. E. $\frac{1}{2}$ E.*) about $3\frac{1}{4}$ miles. Between the above two islands is the passage usually taken to the *Gulf of Kastelorizo*.

CURRENT. The great westerly current, which generally divides at *Toogh Bournoo*, continues, on one part, to run to the southward of *Kastelorizo Island*, while on the other it sweeps round the *gulf*, and passes out through the *Channel of Vathy*. Its velocity appears to be variable. Sometimes the whole current proceeds to the westward; then part of it appears to go round the southern point of *Kastelorizo Island*, and, returning eastward through *Vathy Channel*, again joins the original stream.

KATELORIZO is a favourite place of resort for merchant vessels both going to and returning from *Syria* and *Cyprus*. Pilots therefore may be generally found for the eastern ports of the *Mediterranean*.

The coast to the eastward appears bold and safe, and the water along shore is deep. Three and a half miles from *Toogh Bournoo* is the entrance to *Assar Bay*, which wears the appearance of a *river*, and narrows as you advance within it. Its southern shore is formed by a *promontory*, which is separated at the western end by the *Boghaz, or Strait of Kar*: this, at its eastern entrance, is nearly half a mile wide, but narrows towards the east, and may be safely used in cases of necessity, for the water is deep; but a strong eddy sets through it to the south-eastward, and the winds are frequently very baffling.

KAKAVA. Eleven miles to the eastward of *Kastelorizo* is the entrance to the *Roads and Harbours of Kakava*. A group of small islands divides the entrance into two channels. The pilots prefer the eastern one; for although there is a *sunken rock* off the *Island Kakava*, yet they assert, that in this channel the wind blows more steadily. By keeping the western point of *Kakava Island* to the eastward of South

(S. by W.), until the northern point of *Karaool* bears W. by S. (West), you will always readily go clear of the rock, over which are only 4 feet water. *Xeru* is a cove situated at the north-western part of the *Island Kakava*, where stands a chapel in ruins, and affords shelter during the strong sea-breezes. The most convenient berth for large vessels in the outer *Road of Kakava* is off the northern shore, to the south-eastward of the old castle on the hill. Ships may moor with their anchors, or a hawser may be carried to the shore. The ground is generally good, except in the vicinity of the small rocks which lie to the westward, and these are above water.

TRISTOMOS HARBOUR is to the northward of the western part of *Kakava*. Its entrance contains several islets and rocks, which, however, would present no material obstacle to any vessel that might find it expedient to take advantage of its perfect smoothness and security; it might, nevertheless, be prudent to sound the entrance carefully, lest there should be any danger not discovered. The entrance to *Kakava Road*, from the eastward, is straight, and free from any danger beyond the distance of half a cable's length from the shore on either side; and ships, beating in, will find a slight current in their favour.

PORT POLEMO is situated to the westward of *Tristomos*, and runs in towards *Assar Bay*, which it almost joins, forming a peninsula of high land between. Here, in *Port Stephanos*, which is on the south-eastern side of *Kakava Island*, and in *Yali Bay*, to the northward of *Kakava*, and also in various other creeks hereabout, good anchorage may be found, where privateers and small vessels might be effectually concealed. Water is a scarce article; but small quantities may be found in the old tanks among the ruined houses on *Kakava Island*, and there are some springs of indifferent water at *Tristomos Harbour*. Plenty of small fir-trees may be cut for fuel, but there are none fit for spars. No refreshments can be procured, without sending into the interior, or to *Myra*, and the villages situated up the *Andraki River*: and this must be done with caution, for the Turkish inhabitants in that quarter are not very hospitably disposed.

The ports already described derive importance from the consideration, that to the eastward of this place there are no other land-locked harbours adapted to the refitting of large vessels, though there are some convenient temporary roads. Those we have already noticed, *Marmorice*, *Karagatch*, *Makry*, *Vathi*, *Sevedo*, and *Kakava*, possess abundant accommodation for the rendezvous of fleets; and many small islands and snug coves about them are well suited to the various purposes of airing stores, stretching rigging, repairing boats, erecting tents for carpenters, armourers, and coopers; also for unloading and careening transports or prizes.

ANDRAKI RIVER is situated a little to the northward of *Andraki Point*: the water in summer is brackish, and there is a shoal bar, over which only boats of very light draught can pass.

To the eastward is a range of lofty mountains 4800 feet high, ending to the southward at *Cape Phineka*; and on the eastern part of this bold promontory is the *Inlet of Yeronda*, a deep and good harbour, but open to the southerly winds. To the northward of the harbour is the old *Castle of Phineka*, near which are two rivers; both these are supplied with excellent water. The eastern one is the most convenient for shipping; and, when there is no surf, boats may pass over the bar, with their casks full. The sand and mud thrown out of these rivers have made a convenient bank for summer anchorage to the south-eastward of the above castle. Anchoring in 7 fathoms will be found to be sufficiently near the river for the purposes of wooding and watering, and will also afford ample room to weigh, if the wind should freshen from the seaward. On the banks of the rivers fire-wood may be felled in any quantity, and straight spars may be easily found. *Phineka* may be pronounced to be one of the most eligible places on the whole coast, in fine weather, for wooding and watering, when dispatch is the principal object. Bullocks and vegetables may be purchased at the villages, which are situated a few miles in-shore.

E. by S. (E. S. E.), distant 14 miles from the outer part of *Phineka Point*, is *Cape Khelidonia*. Between these is the *Bay of Phineka*, having a low sandy beach, with some ruins visible several miles inland. Off the point of *Cape Khelidonia* is a cluster of small islands, five in number, two of which are large, high, and contain some creeks, within which small vessels might lie concealed; the other three are barren rocks. All these are bold, except the south-eastern island, from which a reef extends to the eastward, but not so far out as the length of a cable. Vessels may sail among them in any direction, and between them and the *Cape*, which also is steep-to;

attending, however, if there should be little wind, to the current, which runs to the West and W. S. W.

From the point of *Cape Khelidonia* the coast turns suddenly to the northward, and forms the western side of the *Great Gulf of Adalia*: E. N. E. (*E. by N.*) from the *Cape*, distant nearly 4 miles, is the little *Island Grambousa*, which is a high rugged rock, having a spring of good water on the north-eastern side of it, on which account it is much frequented by coasting vessels; these commonly ride on the outside of the island, close in-shore. There is a remarkable *cave*, or natural archway, near the southern part of the island, under which boats can pass and repass; but a strong current runs through it to the westward.

About 4 miles to the northward of *Grambousa Island* is *Adratchan Bay*, where country coasters load with corn: these lie close in-shore, and sufficiently protected from the swell of the sea, but a large vessel would not find any shelter from the easterly winds. N. W. by N. (*N. N. W.*) from *Adratchan Island*, distant $2\frac{1}{4}$ miles, a promontory of high *white cliffs* presents itself, and forms two *cores*, one bending inwards on each side of the isthmus: that to the southward is little known, but that to the northward is called *Port Genovese*, and is a small snug anchorage, the ground good, and the depth moderate. A northerly wind will, however, occasion some swell, and heavy gusts from the westward may be expected to sweep down the great impending mountain of *Adratchan*, the summit of which is 3300 feet high. From *Port Genovese* the shore runs north for $1\frac{1}{4}$ mile, when it rounds more westerly to the little *Village of Deliktash*. About $1\frac{1}{2}$ mile to the northward of *Deliktash*, on the side of a wooded hill, is the small aperture of the *Volcano of Yanar*, which emits a bright and unintermitting flame, visible some miles off.

The space between the point of land which lies to the eastward of *Yanar* and *Deliktash* to the southward is called *Chirali Bay*. Off *Point Yanar* is a small island, and several rocks under water in the bay adjacent. To the north-eastward is a group of small islets, called *Trianesia*; they are distant from the nearest land about half a league, and bear from *Deliktash* N. E. (*N. E. by E.*), distant 5 miles. There is anchorage all round them, and the eastern island contains a cove, where small vessels sometimes haul in. From this island a reef extends about a cable and a half's length N. N. E. (*N. E. by N.*), and a small patch of rocks lies about the same distance E. by N. (*East*) from the cove. For some miles to the northward of *Deliktash* there is a succession of small bays, in each of which is a rivulet of good water. Four miles to the northward of *Trianesia*, on the summit of a small peninsula, are the *Ruins of Phaselis*, now called *Tekrova*: the remains of the port are visible on each side; but the one is too small, and the other too much in ruins to be of the least utility. The anchorage in the offing is clean. From hence northward, so far as *Cape Avova*, there is a straight gravel beach, with two rivers of good water, and a belt of fir-trees.

CAPE AVOVA bears from *Tekrova* N. N. E. $\frac{1}{2}$ E. (*N. E. $\frac{1}{2}$ N.*), distant 5 miles, and is a bold cliff of white rock. At its southern point is a creek, which frequently gives shelter to small coasting vessels; and in the middle of the *Cape* there is a deep cave, where several boats may haul in, and remain perfectly concealed. On the northern side of the *Cape* is a rivulet of good water, emptying itself into a small bay, within which vessels have been built of 200 tons burthen. Two miles N. N. W. (*N. by W.*) from *Cape Avova* is a large patch of rocks, over which the swell of the sea generally breaks. No ships can have any inducement to stand into this bight; but as a general rule, keeping the *Point of Adratchan*, or the extreme of the distant southern land, open of *Cape Avova*, will lead three-quarters of a mile outside of all danger. From *Cape Avova* to *Rashat Island*, a distance of 4 leagues North (*N. by E.*) the shore runs nearly straight, and is throughout mountainous: excepting the above-mentioned shoal, there is no known danger, but several overfalls, which are indicative of shallows.

RASHAT ISLAND is uninhabited, and separated from the main by a narrow channel; and a shoal bank, which every where surrounds the coast, leaves but a small space for ships to anchor. The bottom is sandy, and there would be no room to drive or veer, while so small an island could hardly break off the swell of the sea: yet to a vessel embayed in this gulf, the shelter of even this little island might be a valuable resource. It is steep-to on all sides. A vessel, by hauling close round the island, might bring up under its lee, or perhaps secure herself to the rocks, always taking care to provide against the eddy winds which come down from the inland mountains. If the wind should change suddenly, then either passage will be equally clear.

ADALIA. From *Rasht Island* a steep gravelly shore continues all the way to *Adalia*. Two little rivers empty themselves into the bay. In summer the outer road presents excellent anchorage, in from 20 to 15 fathoms water, the south pier-head bearing N. by E. (*N. N. E.*), distant from three-quarters to one quarter of a mile: the ground is tough, and holds well. The port is too small for general use; but water and most other refreshments, wine excepted, may be obtained with much facility. On the western side of the *City of Adalia* is a water-mill; and to the south-eastward are other water-mills, situated on the banks of a river which here falls into the gulf, with many outlets. About 5 miles to the south-eastward of *Adalia* are the remains of an artificial harbour, called *Laara*: the harbour was formed of two piers; the inner one has not materially suffered, and the outer one is only a few feet under water; within the enclosed space are 2 fathoms, with a sandy bottom, so that a small vessel might perhaps still find shelter here in case of emergency. To the eastward of *Laara* the coast is low and sandy, with several rivers. Two of these, *Cestrus* and *Eurymedon*, are large and deep inside the bars; but their entrances are commonly so shallow, that a boat of the lightest draught can with difficulty enter. This part of the coast ought to be approached with great caution in the night, especially as the bank of soundings is too steep and narrow to give adequate warning. Off the entrance, and to the south-westward of a river, placed on the Chart in $31^{\circ} 18'$ East longitude, are several patches of rocky ground, and others may probably be outside of them; therefore they should have a wide berth.

ESKY ADALIA, ancient *Sidé*, is about 7 miles to the E. S. E. (*S. E. by E.*) of the river just noticed. There are no inhabitants at this place, and no fresh water or fire-wood to be had in its vicinity, and the harbours, of which there are still the remains, are now completely choked up. There are abundant ruins scattered about; of these the most remarkable is its theatre, one of the largest and most perfect remains of antiquity in Asia Minor. The *Theatre of Sidé* is in latitude $36^{\circ} 45' 37''$ N., longitude $31^{\circ} 25' 47''$ E., and may be known, as you approach from seaward, by a large gap in the mountains, through which the *River Manaogal* passes; and this will serve as a good leading mark for making this place.

From hence the coast continues low and sandy until you reach *Cape Karaboornoo*, a small cliff, covered with dark trees; from thence to the *Point of Ptolemais* it is rocky, with a variety of inflections and small islands, affording occasional anchorage for coasting vessels; but they should approach this part of the shore with caution. From hence to *Alaya* the coast is straight and bold.

ALAYA is a large town, standing on the eastern side of a lofty promontory, whose cliffs are visible at a considerable distance. There is a mountain, the peak of which is about 3 leagues to the eastward, and whose summit is not less than 4800 feet high, by which you will readily know this place as you approach it coming in from the south-westward. *Alaya* has neither harbour nor pier, but affords good anchorage in the road, at the distance of from 4 to 2 cables' length E. by S. (*S. E. by E.*) from the octagonal tower; small vessels may haul close in to the landing-place, which will be found a rough stony beach. At the bottom of the bay is a loose sort of sand, on which little reliance can be placed; and as a heavy surf rolls in after southerly winds, the prudent mariner will not make too free with this port, except during the summer months, when he may approach with safety. Vegetables here are abundant, and small bullocks were procured in 1812 at the rate of 7 or 8 dollars per head. It is said that a dangerous shoal lies somewhere about 5 or 6 miles to the southward of *Alaya*: the mariner will therefore be on the look-out for this danger, as its exact situation is not ascertained.

From *Alaya* to *Silinty* the coast runs S. E. $\frac{1}{4}$ S. (*S. S. E. $\frac{1}{4}$ E.*) 22 miles; from *Silinty* it rounds S. E. $\frac{1}{4}$ E. (*S. E. $\frac{1}{4}$ S.*) 14 miles, to the *Promontory of Nephelis*; and from *Nephelis* to *Cape Anamour* E. S. E. $\frac{1}{4}$ E. (*S. E. by E. $\frac{1}{4}$ E.*) 16 miles; so that the whole distance from *Alaya* to *Cape Anamour* is rather more than 17 leagues. The coast is generally high and bold, having no harbours between them, but the ruins of several ancient cities.

CAPE ANAMOUR is the southernmost point of *Asia Minor*, and lies in latitude $36^{\circ} 0' 50''$ N., longitude $32^{\circ} 50' 58''$ E.; it terminates in a high bluff point, inaccessible on one side; and on the other it has been well fortified by a castle and outworks on the summit; from this a wall, flanked with towers, and descending to the shore, separates it from the rest of the promontory; further inland are various remains of ancient architecture. The adjoining plain contains several villages, whence a supply of cattle may be readily obtained and half a mile to the westward of the castle is the

entrance of the *River Direk Ondessy*, 48 yards wide, where boats may procure fresh water with the greatest facility. From *Direk Ondessy* to *Cape Kizliman* the coast forms several *bays*, which may occasionally afford shelter to small vessels; of these the principal one is in front of *Softa Kalassy*, where are the remains of an old pier.

CAPE KIZLIMAN is a bold promontory, with perpendicular cliffs, and connected with the main by a narrow neck of land. From the *Cape* an E. N. E. (*E. by N.*) course for 10½ miles will carry you to the *Port of Melania*, where a vessel may find occasional anchorage in case of necessity. In your passage you will pass an *isolated rock*, 50 feet high, 6 fathoms water round it, and 9, 12, and 16 between it and the land; but the depth gradually decreases as you approach the main. There are the remains of a pier, now nothing more than a *ledge of rocks* under water.

CHELINDREH is 2½ miles to the eastward of *Melania*, and forms a small but secure harbour, which coasters may run into with safety. Its southern point has a *fortress* upon it in ruins: within this is a tank, and at its extreme point an hexagonal tower; a few Turkish huts are also scattered about, and there is a *custom-house*, from whence dispatches are forwarded from the Government to the *Island of Cyprus*. E. by S. ¼ S. (*E. S. E. ¼ S.*) from *Chelindreh*, distant one mile, are two *rocky islets*, the outermost of which is 114 feet high, and S. E. by E. (*S. E.*) from *Chelindreh*, distant 3½ miles, is another barren *rock*, 96 feet high. E. ¼ N. (*E. ¼ S.*) from this *rock*, distant nearly 7 miles, are the *Islands of Papadoula*, lying off the main-land; there is a channel between them and the main with from 10 to 20 fathoms water. Continuing on in the above direction from the *Island Papadoula*, nearly 7 miles further, you will reach *Cape Cavaliere*.

CAPE CAVALIERE is a broad headland, in appearance like an *island*, and having *cliffs of white marble* rising up perpendicularly from the sea to the height of 738 feet, and connected to the main by a low narrow isthmus, which forms a small *bay* on each side. That to the westward is shoal and foul, but that to the eastward makes a good roadstead, much frequented by vessels beating to the westward. There is an *island*, lying nearly east and west, before the *port*, which divides its entrance into two channels: the southern passage is 200 yards wide; the northern one is still wider, and there are 10, 9, and 8 fathoms in both; but as you advance within the western end of the *island*, and between that and the shore, the water shallows to 4, 3, and 2 fathoms: some *rocks* lies off the western end of the *island*, which require you not to go too near to it. Water may be procured here, but wood is scarce.

From *Chelindreh* to *Cape Cavaliere* the coast and islands are every where safe; they contain several deep *creeks* and *inlets*, with clean anchorages, and are capable of concealing even large vessels from the offing; but none of them would afford protection from a south-wester.

From *Port Cavaliere* the main-land runs nearly N. E. (*N. E. by E.*), and on the front of this coast lies *Provencal Island*, almost 2 miles long, and half a mile broad. About half a mile to the S. W. by S. (*S. W.*) of the *island* is a small *rocky patch*, almost even with the surface of the water, in extent scarcely half a cable's length, with deep water on each side of it. The channel between *Provencal* and the main is 1½ mile broad, and forms an excellent road, with a good shelter in all weathers, and a ready ingress and egress with all winds. There is no water on the *island*; but fire-wood may be conveniently procured at its northern end.

From *Cape Cavaliere* the high mountains to the north-eastward appear to retire from the coast, and a succession of low points supersede the former rocky outline. In the deep bight to the north-eastward of *Provencal Island* there are several small *bays*; of these *Agaliman* is the principal.

AGALIMAN is an excellent harbour for coasting vessels; and even large ships may find shelter in the *bays* on each side of this little peninsula. It is commanded by a ruined *fortress*, having a Turkish village within the walls. *Agaliman* is about 9 miles from *Selefkeh*, which is now a poor village, near the *River Ghiuk Soogoo*, having a *bridge* of six arches over it, and a *castle* standing upon a round hill inland. From the head of the bight to the north-eastward of *Agaliman*, a *sandy beach* projects to the southward, forming the low point of *Lissan el Kabeh*, bearing from the north-east point of *Provencal Island* E. by N. (*East*), distant 8½ miles. There is an irregular *shoal-spit* which stretches from the point full one mile; and three-quarters of a mile still further out is a *patch of sand*, with only 4½ fathoms upon it: several shallow overfalls line the interior of the point; therefore the mariner must always avoid coming too near to the eastern side of the bight, and observe to give a good berth to the *Point of Lissan el Kabeh* in passing it. From *Lissan Point* the shore continues north-easterly

to the entrance of *Ghiuk Sooyoo*; this, at its entrance, is 66 yards wide, and has a depth of 3 fathoms. A strong current issues from the eastern angle of the plain, and marks its muddy course to the south-westward by a curved and well-defined line; the water, however, is deep, and the points of the beach which form the river's mouth, are steep-to. The shore from *Lissan Point* is a continuation of high sand-hills, which extend for some space to the northward of the river. About 5 miles to the northward of *Ghiuk River* is *Perchendy*. From *Perchendy* to the *River Lamas* the coast is indented with several creeks and little inlets, but without harbours or places of refuge for vessels of any considerable burthen. The *River Lamas's* waters are good and abundant; boats can enter its mouth, which is 10 yards wide, with facility, as they can go over the bar, and return loaded. On its western side is a little village. Near the *River Lamas* the interior mountains retire from the shore, and leave a broad plain between them and the sea; and from hence an uninterrupted sandy beach extends all the way to the confines of *Syria*, with only the solitary exception of the rocky *Cliff of Karadash Boornoo*, in latitude $36^{\circ} 32' 40''$ N., longitude $35^{\circ} 21' 26''$ E.

MEZETLU lies on the sea-shore, about 17 miles to the north-eastward of *Lamas*. The coast between is composed of a mixed gravel, in which blue limestone and grey granite pebbles predominate. Bullocks may be obtained at *Mezettu*, and the natives appear less reserved than the Turks in general are.

About 5 miles to the eastward of *Mezettu* is *Mersyn*, where a bridge is built over the river. Nearly 3 miles to the eastward is the Village of *Karadouvar*; and $1\frac{1}{4}$ mile further on, that of *Kasalu*, the landing-place of *Tersoos*, from which it is distant about 12 miles. One mile and a half beyond *Kasalu* is *Yenikioy*, and from *Yenikioy*, $4\frac{1}{2}$ miles, is the entrance to the *River Tersoos*: the coast between is composed of high sand-hills covered with wild vines. Inland the appearance is level, and well-cultivated.

TERSOOS is about a mile in length, and stands on a fine plain near the banks of the *River Cydnus*. About a mile to the northward of the town, the river, previously of a considerable depth and breadth, falls over a bed of rocks, about 15 feet in height, whence it separates into several small channels; these streams then unite in one, and continue to the sea. The inhabitants are reported not to drink the water of the river, deeming it unhealthy; the principal houses are supplied from wells. There are two gates, one at the S. W., the other at the N. E. part of the town; to the N. W. of the city, traces of the ancient walls are distinguishable, and a citadel, tolerably perfect, stands to the northward. Goods from Egypt, &c. for *Adana* are landed at the scale, and thence transported by camels; for the river is now barred at its entrance, and incapable of receiving any but the smallest boat; yet when you are inside of this bar, it becomes deep, and about 160 feet wide. To the eastward of *Tersoos River*, distant $1\frac{1}{4}$ mile, is the *River Syhoon*; between them the shore projects south-westward by a long sandy pit, and off this sand-head is a shoal, which runs out a full mile: the bank is here so broad, and the soundings so regular, that any marks would be needless. From the *River Syhoon* a straight beach, 8 leagues in length, runs on towards *Karadash Boornoo*; it appears to be, for many miles inland, a mere barren desert, having in some places lagoons, and in others sand-hills, with a few scattered bushes. One of these lakes or lagoons appears to communicate with the sea, not far from *Karadash*; the water of this lake is salt, about 3 feet deep, and nearly 12 miles long, every where surrounded by barren sands: there is a slight indraught into the lake, and its entrance is about 73 yards across.

KARADASH BOORNOO is a white cliff, 129 feet high, with a forest of stunted oak-trees on its summit. Parallel ledges of rocks project from it in a south-westerly direction. On its western side, about two-thirds of a mile from the pitch of the Cape, is an old wall, and some rocks running out from it, which probably are the remains of an ancient pier. On its eastern side is a small cove, where boats can run in for shelter. This side of the Cape is encumbered with rocks for a considerable distance. About a league to the eastward of the Cape is a building, called the *Khan of Karadash*, from whence travellers commonly embark for *Iskenderoon* and *Syria*. There is a small rivulet near it, and the surrounding plain is uncultivated. Two little islands, or rather dark-coloured rocks, lie nearly opposite to the *Khan*; these are connected by a reef of rocks, and give some shelter to the anchorage, which is to the northward of the outer one: the ground there is rocky, and only slightly covered with a coating of sand. On the outside of these islands the bottom is clean sand, and in the offing, mud.

GULF OF ISKENDEROON. Cape *Karadash* may be considered the north-western point of the *Gulf of Iskenderoon*, which is bounded on the S. E. by Cape

Khynzyr, called also *Cape Porcas*, or *Hog Point*. The coast to the eastward and eastward of *Cape Karadash*, so far as the entrance of the *Jyhoon River*, is of a description to that on the western side, being a low sandy desert, partially covered with water. The *River Jyhoon* is one of the largest rivers in *Asia Minor*; but, like the rest, its entrance is impeded by a bar of shoal water. Between the projecting point formed by this river, and the low rocky *Cape of Ayas*, there is an extensive inlet of sea, called the *Gulf of Ayas*; at its entrance are 7 fathoms water, but further in it becomes so shallow, that boats only can navigate it. Eight leagues East of *E. from the Village of Ayas*, and at the further end of the *Gulf of Iskenderoon*, is *B. or Payass*: hereabout begins the *Province of Syria*, the *Mountains of Taurus* and dependencies, separating it from *Asia Minor*.

Currents on the Coast of Karamania, as described by Captain Beaufort. "From *Syria* to the *Archipelago* there is a constant current to the westward, slightly felt at sea, but very perceptible along the shore, on a part of which it runs with considerable velocity; on the *Syrian* coast it is said to run northward: between *Cape Adratolou* and the opposite island we found it, on one day, almost 3 miles an hour. The configuration of the coast will perhaps account for this fact. The great body of water, as it moves to the westward, is intercepted by the western part of the *Gulf of Adalia*: thus pent up and accumulated, it rushes with augmented violence towards *Cape Khelidonia*, where, diffusing itself in the open sea, it again becomes equalized. Tides there are none; but the cause, the progress, and the termination of the above current will form an interesting subject for future investigation. To trace its connexion with the volume of water which enters by the *Strait of Gibraltar*, the influx of the currents of the *Black Sea*, the effects of the *Nile*, and other rivers of *Asia Minor*, will require a series of corresponding observations on both sides of the *Mediterranean*. The counter-currents, or those which return beneath the surface of the water, are also very remarkable: in some parts of the *Archipelago* they are sometimes so strong as to prevent the steering of the ship; and, in one instance, on sinking the lead, when the sea was calm and clear, with shreds of bunting of various colours attached to the line at every yard, they pointed in different directions all round the compass."

THE ISLAND OF CYPRUS.

Variation One Point West.

THE ISLAND OF CYPRUS is called by the Turks *Kupris*, and situated between the latitudes of $34^{\circ}32'$ and $35^{\circ}41'$ N., longitudes $32^{\circ}16'$ and $34^{\circ}38'$ E.: it lies in an E. N. E. (E. by N.) and W. S. W. (W. by S.) direction, being 41 leagues in length, and 11 in breadth. The principal towns in *Cyprus*, are *Nicosia*, *Baffa*, *Limasol*, *Larnaca*, and *Famagousta*.

NICOSIA is situated inland, about 8 miles distant from the northern shore, and on the banks of the *River Pedio*. It stands on a fine plain, and presents a handsome appearance, its walls and bastions still giving to it an air of great grandeur.

Vessels coming from the westward, and bound to the *Island of Cyprus*, will most probably fall in with the land about *Cape Salizano*, which is the north-western point of the island, and lies in latitude $35^{\circ}6'20''$ N., longitude $32^{\circ}16'30''$ E., about 23 miles to the southward of which is the *Town of Baffa*.

BAFFA, or PAPHOS, was formerly a town of some consequence, and had a small harbour, much frequented: but it is now an inconsiderable place, and nearly blocked up with its own ruins. The town is divided into three districts: the metropolis contains about 150 houses, and is inhabited by the Turks; *Ktema*, or the Greek's Town, has 50 houses; and *Baffa*, or the *Marina*, is jointly tenanted by both Turks and Greeks. The metropolis and *Ktema* form one continued town, built on a low hill of rock, and distant about half a mile from the sea; rough stones compose the houses, many of which are in ruins; and there is a castle on the beach. Every house has its garden attached; and many masses of rock have been excavated into different forms, and converted into Turkish dwellings, particularly in the environs of the town. The *Bay of Baffa* is large, but the port is unsheltered and unsafe, particularly as the mole only partly protects the east and west, but leaves the south entirely open. At its entrance is a great ledge of rocks extending out nearly a league:

your entrance is either to the east or west of this ledge, but the former passage is the widest and best. It will be advisable, in sailing inwards, to keep near to the main, and then you may anchor either before the town or castle, in 8, 7, or 6 fathoms water: this has the best shelter, but S. E. and N. W. winds blow quite through. The land-winds blow off-shore morning and evening.

From the Bay of *Baffa* the shore runs S. E. by E. (S. E.) to *Cape Blanco*, a distance of 15 miles, mostly low land; but the *Cape* itself is high, and makes in three white cliffs, smooth but bluff, having on its western side some few rocks. When the summit of the largest mountain, in the western part of *Cyprus*, bears N. N. E. (N. E. by N.), you will be in a line with *Cape Blanco*; and when *Cape Blanco* bears N. E. (N. E. by E.), and you are about 4 leagues off, then the outer part of *Cape Gatte*, will bear E. by N. (East). About 6 leagues beyond *Cape Blanco* is *Cape Gatte*; this is the southern point of the *Island of Cyprus*, and projects far into the sea; it is low and level, having, when you are coming from the westward, the appearance of an island, separated from *Cyprus*; but as you approach, you will perceive the sandy isthmus by which they are connected. The land between *Cape Blanco* and *Cape Gatte* hollows in, and forms two kinds of bays; but these are totally unsheltered, and the western coast of *Cape Gatte* is encumbered with many rocks, which make too near an approach dangerous.

LIMASOL. Having rounded *Cape Gatte*, you will see, about 3 leagues to the northward, the *Town of Limasol*, distinguished by its white castle, which stands on the shore. The town consists of some miserable mud houses, inhabited by both Greeks and Turks, but the former are most numerous. A mountain-stream runs through the town, and has an old bridge over it. The harbour is commodious, and you may anchor opposite to the castle in from 12 to 6 fathoms, the ground good; *Cape Gatte* bearing S. by W. (S. S. W.) or South (S. by W.). In summer you commonly ride in 7 or 6 fathoms, but in winter in 9 or 8 fathoms. The town is situated in a large plain, about a mile distant from the sea. South and south-easterly winds blow directly in, and occasion a heavy sea.

From *Limasol* the land stretches E. by N. $\frac{1}{4}$ N. (E. $\frac{1}{4}$ N.), 10 leagues, to *Cape Chiti*. In passing along, you will see several rivulets and villages, but none of any great importance. Six miles before you come to the *Cape*, there is a village of neat appearance, called *Chiti*. The coast to the westward of this village has a fertile appearance; and at a distance, inland, you will perceive a high mountain, called *Mount di Croce*, bearing from *Cape Chiti* W $\frac{1}{4}$ N. (W. by N. $\frac{1}{4}$ N.). *Cape Chiti* is a low flat point, with an old tower upon its summit, formerly used for a lighthouse; this *Cape* should always have a wide berth.

LARNACA bears N. by E. (N. N. E.), distant 5 miles from *Cape Chiti*. It stands on a marshy plain, and consists of an upper and a lower town: the latter is commonly called the *Salinas of Larnaca*. There is a citadel of a square form, said to be furnished with artillery; but this is in a decaying state, and the guns are solely used for saluting those vessels which frequent the road. The *Roadstead of Larnaca* is open, but the ground good. In sailing in, give *Cape Chiti* a good berth, and go into no less depth than 10 to 8 fathoms, as a sandy spit stretches far out beyond the tower, and its extent cannot be seen until very near: but when within it, you may anchor in from 20 to 8 fathoms. Moor N. E. and S. W. with an open hawse to the S. E., for the winds from that quarter blow directly in.

E. $\frac{1}{4}$ N. (E. $\frac{1}{4}$ S.) from the *Town of Larnaca*, distant 10 miles, is *Cape Pila*; this point is distinguished by a tower. A little to the northward of the point is the small *Village of Lucola*, near which are two rivulets of good water. About 4 leagues E. $\frac{1}{4}$ N. (E. $\frac{1}{4}$ S.) from *Cape Pila* is *Cape Grego*, forming a long point of land, which may be readily known.

FAMAGOUSTA. About 7 miles to the northward of *Cape Grego* is the *Cove of St. George*, fit only for the smallest vessels. Six miles further on is the *Town of Famagousta*, built upon a rock, and nearly 2 miles in circumference: it is encompassed with strong walls, in good condition, being flanked by twelve enormous towers, and surrounded by a ditch 20 paces in breadth, very deep, and cut out of the solid rock, now dry. Within the fortress is a castle with bastions. The town has two gates with two drawbridges, one on the land-side, the other towards the sea, conducting you to the harbour, which is narrow, and closed by a chain, unloaded vessels only being permitted to enter: these, therefore, commonly visit it to be hove down and refitted. The *River Pedio*, which descends from *Nicosia*, enters the *Gulf of Famagousta*, a little to the northward of the town. You may anchor in the road

before the town in 10, 9, or 8 fathoms water; and vessels that intend wintering at *Cyprus*, resort here for safety.

Quitting the *Gulf of Famagousta*, the coast runs N. E. (*N. E. by E.*) towards *Cape Saint Andrea*, a distance from *Famagousta Town* of 47 miles. In the whole of this way there is no harbour, nor any danger whatever, and vessels may obtain temporary anchorage almost every where, in 8, 10, or 12 fathoms water. About a league before you reach the *Cape*, you will see the small *Islet of Denares*, which is close to the land; and there are also two little islands lying off the point of the *Cape*, called the *Isles of Clidi*, but with no passage for shipping between. *Cape St. Andrea* is the north-eastern point of the *Island of Cyprus*, in latitude $35^{\circ}41'40''$ N., longitude $34^{\circ}37'25''$ E., and bears from *Cape Anamour* E. by S. $\frac{1}{4}$ S. (*E. S. E. $\frac{1}{4}$ S.*) distant 30 leagues; from *Point Lissan el Kabeh* S. E. (*S. E. by S.*), 15 leagues; from *Karadash Boornoo*, S. W. by S. (*S. W.*), 21 leagues; and from *Cape Khynzyr* W. S. W. $\frac{1}{4}$ S. (*W. S. W. $\frac{1}{4}$ W.*), 23 leagues. It is a narrow point of land, of moderate height; and from it the northern coast of *Cyprus* runs, with very few inflexions, W. by S. $\frac{1}{4}$ S. (*W. $\frac{1}{4}$ S.*). There are a few islands, some rocks, and several villages on the shore; but these are not places much frequented by shipping, having neither harbours nor commerce.

ROCKS. *Kephalatis Attalias*. This is a sunken rock, laid down in the Charts in latitude $35^{\circ}45'$ N., longitude $30^{\circ}51'$ E., bearing from the *Town of Rhodes* E. by S. $\frac{1}{4}$ S. (*E. S. E. $\frac{1}{4}$ S.*), distant 45 leagues: its existence is doubtful. Another rock is said to lie West (*W. by N.*) from *Cape Salizano*, distant $26\frac{1}{2}$ leagues, or in latitude $35^{\circ}6'40''$ N., longitude $30^{\circ}40'0''$ E. This, according to Mr. Wilson, Master R. N., is above water, and directly in the way of vessels sailing from the westward for the *Island of Cyprus*; but as it has never been seen by any other vessel, notwithstanding it is said to lie in a spot so frequently traversed by shipping, it must be considered doubtful, and wanting further confirmation. A third danger is reported to lie about $5\frac{1}{2}$ leagues to the southward of *Cape Chiti*, and East (*E. by S.*) of *Cape Gatte*, distant 11 leagues. The existence of this rock has been ascertained by Captain Sir John Franklin, and that the sea breaks over it.

THE COASTS OF SYRIA, PALESTINE, AND EGYPT, FROM THE GULF OF ISKENDEROON TO ALEXANDRIA.

Variation One Point West.

1. SYRIA.

THE entrance to the *Gulf of Iskenderoon* is bounded on the north by the *Point of Karadash Boornoo*, in latitude $36^{\circ}32'40''$ N., longitude $35^{\circ}21'26''$ E.; and on the south by *Cape Khynzyr*, or *Porcas*, in latitude $36^{\circ}19'0''$ N., longitude $35^{\circ}49'30''$ E.

Iskenderoon, commonly called *Scanderoon*, or *Alexandretta*, was a place of great trade, and had its European Consuls resident there, but it is now reduced to a petty village, with few inhabitants; yet the *Gulf of Iskenderoon* is the only place of good anchorage on the *Coast of Syria*, and on that account is still the resort of many vessels; although it has been computed, that by a rendezvous there, you will annually lose one-third of your crew.*

From abreast of *Cape Grego*, in *Cyprus*, your course to *Cape Khynzyr* will be N. E. (*N. E. by E.*), and the distance 38 leagues. *Cape Khynzyr* is first discovered with three or four mountains, of which the highest, *Mount Pieria*, is 5550 feet; and the lower point of the headland, when seen from the southward, looks like the head of a hog, and called by the sailors the *Swine's Snout*. There is a projecting point of land to the southward of *Cape Khynzyr*, which bears a similar appearance; but you should be careful not to mistake it for *Cape Khynzyr*, or you will be led into the *Bay of Antioch* instead of *Iskenderoon*.

In sailing from the southern shores of *Cyprus*, with the winds adverse, you should endeavour to obtain the advantage of the set of the current, which between *Cyprus* and

* From the recent drainage under the direction of Mr. Martinelli, the cause of these disasters may have somewhat abated.

the *Mouths of the Nile*, always runs to the eastward, changing its direction to the N. E. and North as you near the *Coast of Syria*. Between *Cyprus* and *Iskenderoon* it turns to the westward of north; and between the north coast of *Cyprus* and *Karamania* to the westward, nearly in the direction of the land. In order to distinguish the northern side of *Iskenderoon* from the north side of the *Bay of Antioch*, you will see a range of inland mountains at the back of the former, mostly covered with snow. The land about *Karadash Boornoo* is low and whitish; but you must get near before you will be able to distinguish this: keep your lead constantly in action, for shallow water surrounds the whole of that shore, and you may run aground before you are aware, especially during the night. Having made sure of *Cape Khynzyr*, you should pass to the northward, at the distance of 2 leagues, when an N. E. by E. (*E. N. E.*) course will take you up to the anchorage, abreast of the town, where you may ride in from 12 to 5 fathoms water, the ground good and sandy; but you will frequently find both North and N. E. winds very troublesome. Easterly winds also come down from the mountains with great force, and frequently occasion vessels to drive from their anchors. The approach to the anchorage is safe, only giving *Cape Khynzyr* a good berth, on account of a rock which lies a full league off to the northward of the *Cape*, and a bank, which extends along the shore, more particularly to the westward of the roadstead. You will recognise the *Village of Iskenderoon* by the appearance of the two castles; the one has a whitish appearance, the other dark and old; both are some distance inland.

Of the *Bay of Iskenderoon* Captain Sir John Franklin says, "When we were only a few miles distant from the *Bay of Iskenderoon*, and were actually steering directly for the town, the pilot became doubtful of its being the place, from not seeing a minaret that was standing when he was last there, and from the present ruinous and desolate appearance of the houses. The haze then covered the high land and distant points, and prevented his seeing any marks these might have afforded him. He therefore requested the course might be changed, so as to steer towards another town farther to the north, which had a minaret, and presented an appearance more like what he remembered *Iskenderoon* to be. This proved to be *Payas*, or *Bayassa*. The mistake was first discovered by our suddenly shoaling the water to 13 fathoms, when at a considerable distance from its western point of entrance, and his observing a rock above water in the bay, which he knew was not in that of *Iskenderoon*."

"On sending a boat to a vessel at anchor, we found there were only four fathoms water at some distance from the town. I mention this circumstance, because there were other persons on board, who had been at *Iskenderoon* since the pilot had, and were likewise deceived; and also, because I know that a similar mistake on the part of merchant vessels has caused them to be captured by the celebrated robber, *Cucbuk Ali*, when he held the district of *Payas*. *Payas* is now in ruins, and only inhabited by a few Americans and Jews."

"When we returned, opposite the *Bay of Iskenderoon*, the wind was blowing strong from the W. S. W., and sending in such a swell as to cause the sea to break over the shoal parts near the shore. Though the bay afforded little prospect of shelter as we were entering under such circumstances, I determined on trying it, on account of its being represented in the book of Sailing Directions as the best anchorage in *Syria*. We took up our position as near as possible to the spot where the *Fredericksteen* had anchored, and found much better shelter than we had anticipated. The anchor was let go in 14 fathoms, and, after veering to 60 fathoms of cable, the following were the compass bearings taken: extremes of *Town*, S. 30° W., S. 14° W.; *West Point of Bay*, S. 69° W.; *East Point of Bay*, N. 39° E.; *Town of Payas*, N. 18° E.; *Mouth of Pyhoon River*, N. 61° W. From this position the soundings decrease gradually to the shore on both sides."

"If we had gone about three cables' length nearer the town, which we might safely have done, we should have had 12 or 12½ fathoms water, and have been almost sheltered from the swell by the western point of the bay. We had, however, no chart to guide us, and the appearance did not justify our going nearer the town, without possessing some certain information as to the depths of water. The ground is good for holding in every part of the bay; merchant vessels may anchor near the shore in 7 or 8 fathoms. We learned that it is very unusual to have the sea-breeze so strong, or so much swell, as on this day. The water is said to be generally smooth, and favourable for the merchant vessels to receive and discharge their cargoes. The bay is open from W. S. W. to N. E., but, in the summer, the sea-breezes, which come from S. W. and N. W., are said seldom to blow home. The winds most to be apprehended

are those from the N. E., and the gusts from the mountains; but these, as far as I could learn, rarely occur before the commencement of the winter, and in the early spring, at which seasons, I believe, the trading vessels from Europe very seldom come to these parts. Fresh water may be obtained from a canal that has lately been cut from two springs about a mile south from the town."

ANTIOCH. From *Cape Khynzyr* the coast runs S. S. E. $\frac{1}{2}$ E. (*S. by E. $\frac{1}{2}$ E.*) 10 miles, to the entrance of the *River Orontes*, now called *Nahr el Aaszy*, a little before you come to which is the *Village of Souadiah*. The *Orontes* is the chief river in Syria, and winds inland full 60 miles, first running eastward from the sea, and then southward, almost in a parallel direction to the coast; taking its rise from *Mount Lebanon*, and not far from the source of the *River Jordan*. In summer, notwithstanding its magnitude, the sultry nature of the climate would quite dry up its waters, were it not for the frequent bars of sand by which its course is obstructed. In its progress it forms three lakes, the *Bahr el Kades*, *Famie* or *Apamea*, and *Antakia*, and from autumn to spring is navigated by large boats full 20 leagues upwards: it enters the sea by two mouths, being divided at its entrance by the little *Island of Melibe*.

Antioch is situated on the southern banks of the *Orontes*, which is here crossed by a bridge 50 yards wide, and is in latitude $36^{\circ} 11' 0''$ N., longitude $36^{\circ} 9' 30''$ E., Aleppo bearing true east, distant 50 miles from it.

S. W. (S. W. by W.) from the entrance of the *Orontes*, distant 3 leagues, is *Cape Possidi*, the southernmost point of the *Bay of Antioch*; this is the point already stated to have somewhat of a resemblance, on your approach from the southward, to that of *Cape Khynzyr*, from which it bears South (*S. by W.*), distant 8 leagues. From *Cape Possidi* the shore runs S. S. W. $\frac{1}{2}$ S. (*S. S. W. $\frac{1}{2}$ W.*), 23 miles, to *Cape Ziaret*; this also is a high promontory, and bears from *Famagousta*, in *Cyprus*, E. by N. $\frac{1}{2}$ N. (*E. $\frac{1}{2}$ N.*), distant 30 leagues, and from *Cape Cavaliere*, in *Karamania*, E. S. E. (*S. E. by E.*) 33 leagues.

The *Town of Latakia* is seated on the N. E. side of *Cape Ziaret*; the port is at a little distance from the town, and small, but somewhat better sheltered than most others on the coast. A very low and dangerous spit of sand forms the northern entrance into the bay, and from its extreme lowness, not exceeding three feet in height at the point, or twelve in any part, it requires to be most cautiously approached. From being sand, this point cannot be distinguished at night, and the lead would be an unsafe guide. A fine old castle projects into the sea at the point of a bed of rocks. The *Marina* is built upon the superstructure of some ancient columns, and in the town are an old gateway, and other antiquities. From *Latakia* you may see *Mount Lebanon*. The port is formed by two jetties, but only calculated for small vessels; for one half is filled up by sand the sea has thrown into it, and in the other half the depth is only 12 feet.

In coming from the N. W., the first indication of approach to *Latakia* is some wooded land, which appears like an island, at the distance of 12 or 14 miles. The mosque and its lofty minarets, built on the summit of this land, are next seen; then some other minarets; and at length the lower land rises to the view, which terminates at *Ziaret*. The old castle, and the magazines at the *Scala*, in the inner harbour, are then just visible, to which the course may be directed, if you have clearly made out the low sandy point, and are at the distance of three or four miles from it. When this point is brought to bear N. E. by N. (*N. E.*), at the latter distance you will have 17 fathoms water, the depth gradually decreasing as you advance. You may anchor in $12\frac{1}{2}$ fathoms, with *Cape Ziaret* bearing by compass S. 43° E.; the *Old Castle*, at the entrance of the inner harbour, S. 62° E.; the low *Sandy Point*, N. 8° W.; and the *Minaret* at the *Scala*, or landing-place, S. 63° E. You will then be distant from the landing-place in the inner harbour two miles and a half; from the low sandy point three miles and a half; and two miles from the nearest shore.

S. E. $\frac{1}{2}$ S. (S. S. E. $\frac{1}{2}$ E.) from *Cape Ziaret*, distant 5 leagues, is *Gebileh*, standing at the foot of an inland mountain. About 5 miles to the southward of *Gebileh* is a little river, called *Nahr el Mulk*, at the entrance of which are some ruins, by which it may be distinguished. Five miles to the south of this is the *Village of Merkab*; and from *Merkab* the coast extends S. by W. $\frac{1}{2}$ W. (*S. S. W. $\frac{1}{2}$ W.*), about 19 miles, to the little *Island of Ruad*, which is rocky, and has a fort on it: it is asserted that near it a spring of fresh water rises up in the sea. Inside the islet there is anchorage, but very little shelter. Nearly opposite to the *Island of Ruad* is the little *Town of Tortosa*, formerly a place of considerable strength, of which the ancient walls, still standing, bear ample testimony. About 5 miles to the southward of *Tortosa* is the *Nahr el Kebir*, a small

rivulet, and near it a khan for the use of travellers; beyond that are those of *Sumiri* and *Ortosa*; having passed these, you will enter the *Gulf of Tripoli*.

TRIPOLI. The *Gulf of Tripoli* is about 7 miles broad, and bends in circularly: the town is situated at its southern end, in latitude $34^{\circ}26'22''$ N., long. $35^{\circ}52'32''$ E., and seated at the foot of some high lands at a little distance from the sea. The *Almena* is near the shore, and the customary place where merchant vessels load and unload their cargoes; there is, properly speaking, *no harbour*, but merely a roadstead, somewhat defended from the action of the sea by the little islets called the *Rabbits* and *Pigeons*. The anchorage is by no means safe or convenient: for the bottom is rocky, and apt to injure the cables, while South and S. E. winds are frequently tempestuous, and often dangerous. Along the sea-side are the remains of several square towers. The town itself is about three-quarters of a mile long, and 300 yards broad, being traversed by the little *River Nahr Abon Ali*, too shallow and rapid for even boats to navigate. The only fortification is the *citadel*, standing at the southern part of the town, on the banks of the *Nahr Abon Ali*; and this is nearly useless, being commanded by a height at the distance of 150 yards.

Vessels coming from the westward, and bound to *Tripoli*, should fall in with the land a little to the southward of the town, on account of the current which runs along the coast to the northward. Here you will get sight of *Mount Lebanon*, which rises up conspicuously behind the town, and is visible far off at sea. The land to the southward may be known by one of its summits being at almost all times covered with snow. To the northward of the foot of *Mount Lebanon* is a round hill, generally called *Mount St. Croix*: a league to the southward of this is another, with a high-peaked point; between this and the round hill above mentioned appears the *Town of Tripoli*.

On approaching the *Port of Tripoli*, you will perceive the rocky islands above mentioned, called the *Rabbits* and *Pigeons*, situated on a ledge which stretches out from the southern point, and runs northerly: you will sail in to the northward of this ledge, and have at the entrance 12, 11, and 10 fathoms; or you may pass to the southward of the northern islets, the middle one of which has some trees upon it, and lies N. W. $\frac{1}{4}$ N. (*N. N. W. $\frac{1}{4}$ W.*) distant nearly 3 miles from the southern point of the bay, only taking care to give the point of the bay a berth of 2 miles, and you will have from 7 to 9 fathoms water; you may then steer S. Eastward for the anchorage: the road, as before observed, is *bad* and *rocky*, and, without proper caution, will most likely damage your cables; like all the roadsteads along this coast, it is only fit for summer anchorage, as the winds are generally violent during winter, and blow home. There is a river to the northward of the town, called *Nahr el Bezed*, or the *Cold River*, where a khan is situated for the use of travellers, but no village.

From the southern point of the *Gulf of Tripoli*, the coast runs S. W. by S. (*S. W.*) to *Cape Madonna*, a distance of 11 miles: this is a projecting headland, to the southward of which the land forms a sort of bay, where the *Villages of Batroun* and *Djebail* are situated.

2. PALESTINE.

About 5 miles to the southward of *Djebail* is a little river called *Nahr Ibrahim*; it proceeds from a deep chasm in the *Mountains of Lebanon*, and has a bridge, with one arch over it. *Mount Lebanon*, now called *Mount Libanus*, has for ages been celebrated for its forest of cedar-trees; these are reduced to about twenty, but they are of enormous dimensions, and very old. Most of the rivers which descend from these mountains into the sea hereabout, are only rivulets, or torrents, which though swollen by rains during the winter, are in the summer nearly dry.

Three leagues to the southward of *Nahr Ibrahim* is *Nahr el Kelb*, or the *Dog River*, which has a bridge over it: on its northern bank stands the *Village Antoura*. About a league to the northward of the river is a point of land, forming the rocky extremity of a small bay, inhabited by fishermen.

BEIROUT. *Cape Beirut* bears from *Cape Madonna* S. S. W. (*S. W. by S.*), distant 32 miles; and from *Cape Gatte* in *Cyprus*, E. S. E. $\frac{1}{4}$ E. (*S. E. by E. $\frac{1}{4}$ E.*), 43 leagues. The land to the eastward of the *Cape*, and between it and the *Nahr el Kelb*, forms the *Bay* or *Port of Beirut*, which is little better than an open roadstead. On the south side of this bay stands the town, which, in point of situation, is considered to be the best of all the towns in *Palestine*: it is small, and surrounded by a wall with five gates. Formerly there was a good port and harbour; but this is choked up with sand and rubbish, and there now only remains part of an ancient pier or mole, giving shelter to boats; merchant vessels must lay off at a considerable distance. Captain

Frankland says the anchorage off the town is good in summer, but open from the West to the N. N. E., though the wind never blows home. In winter the best anchorage is off the mouth of the river, to the eastward of the town, at about 2 miles' distance, and round a low point which has a tower upon it, with some detached rocks above water. Here you will ride in 12 fathoms, and can, with fine weather, water at the river, or at a well on the cliffs, between the river and the town; but when there is any great swell of the sea, this water becomes brackish. *Cape Beirout*, the western point of the bay, has some very dangerous rocks lying off it, which should have a good berth in rounding; and when you are at a distance, the Cape has the appearance of an island.

SEYDE. S. S. W. (*S. W. by S.*) from *Cape Beirout*, distant 14 miles, is the *Town of Seydé*, or *Sidon*. This is an ancient town, the customary sea-port of *El Sham*, or *Damascus*. It is situated in a plain, extending 2 miles from the sea, and terminated inland by high barren mountains. Like most other Turkish towns, its streets are narrow and dirty, the houses ill-built, and full of ruins. Here vessels may anchor in 6 fathoms, inside an islet in front of the port, called *Said Island*. This island is all rock, and lies N. W. by N. (*N. N. W.*) from the N. E. corner of the town, the northern end being distant about 4 cables' length, and about the same distance from the beach; but this is too much exposed to be considered a place of safety. From the north point of the island is a shoal to about 50 fathoms, and also one off the south point. The town is defended by two castles, both situated near the sea; and the landing-place is on a flat kind of beach, or in a small creek near the castle. The ancient harbour is so choked up, that houses now stand where formerly vessels anchored.

From *Seydé* the coast runs southward to the *Town of Tsour*, the ancient *Tyre*. In proceeding along the shore, you will pass the *Village of Sarfund*, and the *River Kasmia*, formerly denominated the *River of Lebanon*. This river takes its rise from an extensive valley between *Lebanon* and *Anti-Lebanon*, having a bridge over it, composed of a single arch.

TSOUR, or TYRE, is about 19 miles S. S. W. (*S. W. by S.*) from *Seydé*: the port is too shallow for any thing but boats; it extends 80 feet from the shore, and 150 feet along the banks, being protected towards the north by the ruins of the mole, and towards the east and west by houses built upon a jutting slip of land. To the eastward of the city is nothing but sand-hills for nearly the length of a quarter of a mile; and about 2½ miles to the southward of the town is a well 150 yards from the edge of the sea, where, although 50 yards deep, it flows over, and supplies a reservoir and canal, which turn two mills. This bears the name of *Solomon's Well*. There is also another well near it, somewhat smaller, which also overflows.

Vessels coming to *Tsour* must sail in to the northward of the town, and avoid the several rocks which lie scattered about to the westward: these stretch out a full half mile from the point, and should be left on the starboard side; and running up near to the town, anchorage may be found in 5, 4, or 3 fathoms. Here they will ride in safety, sheltered from almost all but northerly winds, and these blow directly in.

In leaving the *Port of Tsour*, always give the southern point of the promontory a good berth, for it is encumbered with many rocks; then steer S. S. W. (*S. W. by S.*), and this course will take you to *Cape Blanco*, and also to the *Port of Acre*. *Cape Blanco* is about 13 miles from the *Point of Tsour*, and has a little reef off its northern point. It is a high and white calcareous rock, and to the northward of the point is a tower; these serve as marks for this place. From the *Point of Cape Blanco* the coast for about a league becomes low and rocky, and to the southward are the villages of *Nakour* and *Zib*.

ACRE, commonly called ST. JEAN D'ACRE, is a city, which, on approaching, shews a handsome appearance, having several minarets and churches; the town is small, but well-fortified, and lies in latitude 32° 54' 35" N., longitude 35° 6' 20" E. The walls which surround the town have been doubled, and surrounded by a fosse, which is deep, but generally dry. There is only one gate by which you can gain admission into the town; and the entrance to the harbour is protected by a fortress carried out to the seaward. This port is much neglected, and unfit for large vessels; the anchorages are rocky and bad: ships therefore usually resort to *Kaffa*, which is situated at the southern part of the bay, and under the shelter of *Mount Carmel*.

KAFFA, on the southern side of the *Bay of Acre*, consists of one irregular street, with the house of the magistrate at its further end: there are a fortress and a custom-house: goods are commonly landed here from large ships, which cannot get anchorage in the *Port of Acre*. From the *Point of Cape Carmel* a sandy spit stretches out to the northward, behind which is the roadstead that affords protection with westerly

and southerly winds, lying as near to the shore as you conveniently can. Here large vessels commonly choose their anchorage, for, as before observed, the ground of *Acra* is foul, and will eventually cut your cables. *Nazaria*, the ancient *Nazareth*, bears from *Mount Carmel* S. E. by E. (S. E.), distant 19 miles, and from *Nazaria* to *Tiberia*, on the edge of the *Lake Tiberias*, the direction is N. E. by E. (E. N. E.) about 13 miles.

From *Cape Carmel* the coast runs nearly S. by W. $\frac{1}{4}$ W. (S. S. W. $\frac{1}{4}$ W.) to *Jaffa*, a distance of $15\frac{1}{2}$ leagues, and presents a series of rugged mountains, covered with oaks and firs, affording retreats for wild animals. About 8 miles south of *Cape Carmel* is *Athlita*, a small village, situated on a kind of promontory: a little bay is formed on the south side of the peninsula, which makes a tolerable occasional roadstead for small craft. Four miles from *Athlita* is the ancient *Town of Dora*, now called *Tantura*, abounding with ruins.

CÆSAREA is 5 miles to the southward of *Tantura*, once the principal sea-port of *Samaria*, now only to be distinguished by the ruins that surround it. About 8 miles to the southward is a rivulet, called the *Nahr el Kasab*; and to the southward of this river is the little *Village of Arzouf*; 2 leagues further is another village, called *Miski*; 8 miles beyond which is the *Town of Jaffa*.

JAFFA was the port-town of *Jerusalem*, which is situated 10 or 11 leagues S. E. $\frac{1}{4}$ E. (S. E. $\frac{1}{4}$ S.), and is of great antiquity. This part of the coast is but little elevated above the level of the sea, although the town stands upon an eminence of a conical form. The houses, distributed around the declivity, appear rising one above the other, like the seats of an amphitheatre. On the summit of the hill stands a small citadel, which commands the town; and the bottom of the hill is surrounded by a wall, 12 or 14 feet high, and 2 or 3 feet thick, with a ditch; but only to be distinguished from a common wall by the battlements at its top. The general appearance of *Jaffa* from seaward is desolate. Its harbour is merely a long narrow shallow basin, enclosed by rocks; and the roadstead is not even safe for the boats and vessels belonging to the country to lie in. On your approach towards *Jaffa*, you will observe a dark hill, upon which are two black towers, by which you may distinguish its situation. A ledge of rocks extends from the southern side of the port to the northward, and directly in front of the town: this forms the port or basin. Large ships may anchor on the outside of this ledge, in 12, 11, or 10 fathoms, the ground tolerably good, bringing the two towers above mentioned to bear S. E. by E. (S. E.): this is the best part of the road; for if you go further to the southward, the ground will become foul, so that, should your anchors drive, there will be no shelter; while to the northward of *Jaffa Road*, at about $1\frac{1}{2}$ or 2 miles' distance, there is fair sandy ground. But to the northward of this, and so far as *Mount Carmel*, the water is deep, and the shores foul and steep-to. At the distance of a musket-shot off the land you will have 30 and 40 fathoms, the ground being of so soft a nature, that it will not even adhere to the lead. The coast to the northward of *Jaffa* has a reddish appearance, till within two miles of the town, when it changes to white sand, and continues to the southward; and the more southerly you advance, the lower the land becomes. By these appearances you will not fail to ascertain your approach towards *Jaffa*.

From *Jaffa* the coast continues in a S. S. W. (S. W. by S.) direction towards the *Town of Razza*, a distance of nearly 13 leagues. About 5 miles from *Jaffa* you will perceive the entrance to a little stream called *Nahr el Roubin*, over which is the remnant of a Roman bridge, consisting of one large arch and part of another, now encumbered and almost overgrown with weeds. Above this bridge the rivulet becomes nearly dry, while below the bridge, and between it and the sea, there is a fine flow of water: this is brackish, but not salt. Four miles from the entrance of the *River Roubin* is the *Village of Ibne*, standing on a small hill. Eight miles further is *Esded*, near which is an old building, in the form of an open square, and appearing to have formerly been a khan for the accommodation of travellers. From *Esded*, distant two leagues, is another inland village, called *Djenin*. You will now, by following the coast, arrive at *Scalona*, the ruins of the ancient *Town of Ascalon*; a league beyond these ruins are others.

RAZZA, or *GAZA*, is in latitude $31^{\circ} 28' 0''$ N., and longitude $34^{\circ} 30' 10''$ E. It was formerly the frontier town of the *Land of Canaan*, but presents little worth notice.

A little to the S. W. by S. (S. W.) of *Razza* is the *Tower of Besor*, and further on the *Village of Esdior*; beyond this village are several sycamore-trees, standing singly in an uncultivated plain. Three leagues to the south-westward of *Razza* is *Khan*

harbour; but there are channels and spots of ground between these shoals, with 5, 6, and 7 fathoms water.

The ancient *City of Alexandria* is a vast mass of shapeless ruins: the modern city does not occupy one-fifth of its extent; but the remains of the wall which surrounded the former still exist, and include two strong fortresses, three convents, various gardens, a synagogue, a bath, a cistern, and multitudes of ruins. Outside of these walls, and between them and the canal, is the celebrated *Pillar of Pompey*, formed of three pieces of solid granite, of a reddish colour, 99 feet high, and visible at a great distance, thus forming a most remarkable object to seaward. *Cleopatra's Needles*, about one-third of a mile to the eastward of the *Parade*, and near the sea; these were two pillars, one of which still remains erect, and is 70 feet in height, being covered with hieroglyphics, which time has in a great measure effaced; the other is prostrate by its side: each consists of one stone.

SAILING DIRECTIONS. Vessels bound from the westward for the *City of Alexandria*, commonly make for the *Tower of the Arabs*, which is situated in latitude $30^{\circ} 58' 15''$ N., longitude $29^{\circ} 34' 20''$ E., and is a remarkable object, standing between two dark-looking hills, on the westernmost of which are the ruins of a castle, appearing, at first sight, like a ship under sail: this is the most elevated land on the coast hereabout, and will generally become visible at the distance of 6 leagues off. At that distance from the land you will have about 90 fathoms water: the soundings are tolerably regular, but it will not be prudent at night, or in dark weather, to decrease your depth to less than 25 fathoms; for you will then be 5 or 6 miles off the shore. In proceeding along the coast, a little round hill comes in sight, and as you approach this, you will see *Pompey's Pillar*. The soundings will now sufficiently distinguish this part of the land; for to the westward of *Alexandria* the water is deep, but to the eastward it becomes shallow; there is also a perceptible difference in the colour of the water, that to the westward being clear, while that to the eastward is muddy; and again, the land to the westward is divested of trees, while to the eastward there are many trees, and the coast is higher and more unequal; though immediately to the eastward of *Alexandria* there are some sand-hills, with only a few palms.

The *Old Port of Alexandria* has three principal channels, by which you may enter it. The first and most southerly of these is the *Marabut Passage*. To sail into this channel, bring *Pompey's Pillar* to bear about E. by N. (East), and the ruins upon *Marabut Island* S. by W. (S. by W. & W.), distant three-quarters of a mile, when a S. E. by E. (S. E.) course will carry you past the rocky reef which stretches off the north-eastern end of the island, and towards some rugged points of land, behind which are the wells and watering-place; in this track you will have 5, 6, and 7 fathoms; but towards the shore the water becomes shallow. Having advanced within a quarter of a mile of the coast, you may proceed at that distance along shore, all the way to the town, or within the western arm of the *Pharos Island*; here you may anchor, half a mile from the *City*, in 6 or 7 fathoms, nearly equidistant from each shore. By taking this channel, you will obtain the best entrance, and by this route will pass within side of all the shoals that constitute the passages. By keeping the *Pharos Castle* well open to the northward of all the land of *Pharos Island*, you will keep clear of all the shoals until you get opposite to whatever channel you intend entering.

The *Central, or Boghaz Channel*, lies about $2\frac{1}{2}$ miles to the north-eastward of the *Tower of Marabut*, or nearly midway between that island and the *Pasha's New Harem*. To enter this channel, bring the two *Boghaz Sand-hills* over a notch in the low dark island near the shore, bearing S. E. by E. (S. E.); this channel carries 25 feet water throughout, when *El Hout Rock* is awash; and when the *Black Rock*, which lies off the *Pasha's Harem*, is nearly closing the *Pharos*, the vessel will be at the entrance of the channel, which is well distinguished by the sea breaking on both sides. Having passed this latter mark, and run about half a mile from it, with the *Boghaz Sand-hills* bearing S. E. by E. (S. E.), you should alter your course to S. by E. (South), in order to avoid the *El Kot*, which you will leave to the larboard, and on which you will most probably see the sea breaking. If there be no sea, a boat should be moored in the channel about the spot, where you should alter your course to S. by E. (South). When through, and approaching the shore, you may sail up within half a mile of it, and the *Pharos* open east of the windmill, bearing about N. E. by N. (N. E. & E.); will keep you clear of the *Harbour Bank* in sailing up the harbour.

The *Corvette*, or *Djerme*, Channel is about a mile to the south-westward of *Point Eunostos*, and runs in between two rocks, which occasion the passage to be very narrow; the mark for this channel is *Fort Bahaire* open to the eastward of *Fort Birket*, bearing S. E. $\frac{1}{4}$ S. (S. S. E. $\frac{3}{4}$ E.) These two forts stand to the westward of the large *Fort Necropolis*; *Fort Bahaire* lying farthest inland, and a tower will then appear in the middle of it, while at *Fort Birket* is a small tower at its eastern end. This pass has 19 feet through it, and when you have clearly made out *El Hout Rock*, (a low rock on the western side of the channel,) pass close to the eastward of it. Then steer South (S. by W.) for the *Old Canal Battery*, till the vessel has rounded the *Harbour Banks*, and may then proceed towards the town, as before directed.

The *New Port of Alexandria*, or *Eastern Harbour*, may readily be known by the *Pharos square Castle* and *Light*, which stands at the extremity of the mole, and is constructed of stone, having arches, through which the water passes. About a cable's length from the point is the *Diamond Rock*, above water; you will leave this on your starboard side at entering, sailing about a cable's length from it, and anchor off the western shore in 2 $\frac{1}{2}$, 3, and 3 $\frac{1}{2}$ fathoms; the shoal bank on this side of the harbour is almost as broad as the length of the mole, and there are several spots of 2 and 3 fathoms water lying scattered about the middle of the harbour; of these you must be particularly careful. The space for anchorage is very limited, in comparison with the size of the port: the best anchorage will be with the *Pharos Tower* bearing N. W. by W. (N. W.), distant three-eighths of a mile, in 5 fathoms; but it is exposed to the northerly winds, and vessels frequenting it should always buoy their cables, or they will be damaged by the rocky ground, which renders almost every part of the harbour foul. Near the lighthouse and the *Diamond Rock* are 5 fathoms, and between the *Diamond Rock* and the *Pharos* 2 and 2 $\frac{1}{2}$ fathoms.

Ships bound to *Damietta* from *Alexandria* must shape their course from *Aboukir Island*, first, N. E. by E. (E. N. E.) 19 or 20 miles, or until they clear the *Rosetta Branch*, which having done, then sail E. by N. (East) until you have passed *Cape Bourlos*; then steer E. by S. (E. S. E.) 35 miles further for the entrance to *Damietta*. Do not come nearer the land throughout than to have 8 fathoms water, nor yet so near, when the wind is from the seaward, until you have cleared *Cape Bourlos*, when you may run down towards *Damietta* in 9, 10, 12, and 13 fathoms: the land will appear in hillocks until you discover the *Minarets of Damietta*; having neared these, you will haul up for the anchorage outside of the bar; bring the *Castle* to bear S. by W. (S. S. W.), and anchor in from 12 to 7 fathoms, fine muddy ground.

The current always runs easterly along the shores of *Egypt*, particularly in blowing weather, with a velocity of nearly one mile an hour.

Both in the *Ports of Syria* and *Egypt* the ships are infested with vast numbers of cockroaches; some of these are one and a half, and some two inches long, with long antennæ, and of a reddish-brown colour: these are both troublesome, offensive, and destructive. The swarms of flies and musquitoes are also dreadfully annoying, especially to Europeans.

THE COAST OF AFRICA,

FROM ALEXANDRIA TO THE STRAIT OF GIBRALTAR.

Variation One Point and a Quarter West.

1. LYBIA, FROM THE ARAB'S TOWER TO CAPE RAZATIN.

THE ARAB'S TOWER is in latitude 30° 58' 15" N., longitude 29° 34' 20" E., and forms a remarkable object when making the *Ports of Alexandria*, being situated upon the highest part of the coast, and visible 6 or 7 leagues off. The shores in its vicinity, both eastward and westward, are foul, and dangerous to a considerable extent, and therefore should at all times have a good berth. H. M. Sloop *Victorieuse* is said to have discovered a rock nearly as large as a ship's cutter, having only 9 feet water over it, and 5 fathoms all round it, lying with the *Arab's Tower* bearing E. S. E. $\frac{1}{4}$ E. (S. E. by E.),

distant 5 or 6 miles; the hill to the eastward of the town E. $\frac{1}{2}$ S. (E. S. E.), and the extremes of the land in sight E. by N. $\frac{1}{4}$ N. (East) and S. W. $\frac{1}{4}$ W. (W. S. W.). This appears to be situated on a *shoal*, which stretches along, in the direction of the shore, about $4\frac{1}{2}$ miles, and has a channel between it and the land, with 6 and 7 fathoms water, about 2 miles wide. Another *shoal*, mentioned by Mr. J. Wilson, with 4 fathoms on it, and 8 fathoms round it, lies about 2 miles from the shore, with the Arab's Tower bearing S. $\frac{1}{4}$ W. (S. by W. $\frac{1}{2}$ W.), and the palm-trees between the Arab's Tower and Marabut Island E. $\frac{1}{4}$ S. (E. S. E. $\frac{1}{4}$ E.).

From the Arab's Tower the coast, running westward, is barren; and though soundings may be found all the way along the shore, yet there are many rocky ledges which every vessel must be careful to avoid. The principal and most remarkable points within the space included between the Arab's Tower and Port Toubrouk, which is the most eastern port under the jurisdiction of Tripoli, are as follow:—

From the Arab's Tower to Point Tanhoub the bearing and distance are W. by N. (W. N. W. $\frac{1}{4}$ N.) 63 miles; from Point Tanhoub to Ras al Kanais W. by N. $\frac{1}{4}$ N. (W. N. W. $\frac{1}{4}$ N.) 27 miles; from Ras al Kanais to Ras al Harzeit W. by N. $\frac{1}{4}$ N. (W. N. W. $\frac{1}{4}$ N.) 27 miles; from Ras al Harzeit to Cape el Ablem W. by N. (W. N. W. $\frac{1}{4}$ N.) 72 miles. Within this space are the rocky ledges of *Ishaho* and *Tifark*; the former lies about a mile and a half from the shore; the latter is more distant. There are channels between them and the land; but though coasting vessels may safely run along shore, and take the inner passages, yet it will always be prudent for strangers to go to the northward of them. The ground also about Ablem Laron is foul. From Cape Ablem to Port Salloume the coast runs W. by S. (W. $\frac{1}{4}$ S.), 43 miles, and in sailing along, you will pass the Villages of *Sikheira* and *Beni Hadji*; the soundings all the way are regular, and without any danger. Port Salloume is small, and offers a temporary anchorage for small vessels; but it is unsheltered from the North and N. E. winds.

From Salloume to Cape Luko, or Ras al Milhr, the course and distance are N. by W. $\frac{1}{4}$ W. (North) 25 miles; rather more than midway between them is the little Port of *Bordea*, frequented by small craft. From Cape Luko to Port Toubrouk the coast bends W. by N. (W. N. W. $\frac{1}{4}$ N.), about 50 miles; the land about the Cape is encumbered with rocky reefs, which extend considerably to the westward, and must always be carefully avoided. There is also a rocky reef, named *Ahal Rocks*, distant about 7 miles before you come to Toubrouk, which is dangerous; the passage between it and the shore has from 8 to 5 fathoms water. Toubrouk is a small port, occasionally frequented by country vessels, it being the first or most eastern harbour belonging to the Government of Tripoli. Its situation is in latitude $32^{\circ} 3' 51''$ N., longitude $24^{\circ} 3' 33''$ E.

2. THE COAST OF TRIPOLI, FROM PORT TOUBROUK TO RAS AL ZARGISS.

The coast, which is under the jurisdiction of Tripoli, commences about the meridian of $24^{\circ} 30'$ E., and ends at Zargiss, in longitude $11^{\circ} 10'$ E. There are on this immense extent of coast but few towns or places of commerce; the principal ones are *Bengasi* and *Tripoli*.

BOMBA. From Port Toubrouk the coast runs in a W. N. W. $\frac{1}{4}$ N. (N. W. $\frac{1}{4}$ W.) direction to Toume Point, a distance of 24 miles; there are some rocky reefs about the northern part of the Point of Toubrouk, which must have a berth in passing. Fourteen miles from this point is the Village of *Al Korat*, with a rivulet near it; the shore is steep-to; but at *Al Korat* a shallow sandy flat begins, which extends all the way to the Gulf of Bomba. From Toume Point the land turns W. $\frac{1}{4}$ S. (W. by N.) to Platlea Point, the entrance of *Kuraitah*; a sandy flat runs off the point N. W. $\frac{1}{4}$ W. (N. W. $\frac{1}{4}$ N.) one league, upon which *Seal Island* is situated. To the westward of this island is the entrance to *Marza Eshoril Kuraitah*, a narrow creek or cove, where small vessels run into, the water shallowing to 2 and 1 fathom; between the island and the western main-land are 6, 5, and 4 fathoms. The shores are here low and marshy, but inland rise to a moderate height.

Seal Island may be considered the southern point of the Gulf of Bomba. Another island lies in the middle of the gulf, called *Bhurda*; and a third island, lying off *Tank Point*, is named *Zouzra Mezraa*, or *Menelaus*. There is good anchorage about half a mile to the southward of *Tank Point* in 6 or 5 fathoms, the ground soft; further in,

or nearer to the land, it becomes shallower; and opposite to *Menelaus Island* the water deepens to 11 and 12 fathoms; sand and weeds; between it and *Bhurda* are 14 and 15 fathoms, and to the southward of *Bhurda* 16 and 17 fathoms; sand; but these anchorages are exposed to easterly and northerly winds. The shore all round the bay is low, with several salt-lagoons, and but few inhabitants. A small rivulet empties itself into the bay on the western side, called *Wad al Hassan*, and another to the southward of that, named *Wad al Gharra*. There are also some clusters of ruins on the shore, and a lagoon running in to the northward of *Tank's Point*. The *Island Menelaus* is situated upon a bank which is connected to the main, over which the ground is rocky, and there is no safe passage for shipping: on this bank, about 1 mile to the northward of the island, is *Shag Islet*, with some small rocks about it: there is also a very high rock to the northward, called *Ship Rock*: there are several other rocks about it: the largest is named *Anhr Ghranhe*. *Ship Rock* bears from *Bhurda Island* N. W. by N. (N. N. W. $\frac{1}{4}$ N.), distant $5\frac{1}{2}$ miles, and forms a remarkable object to vessels coming from the northward, by which they will be enabled to recognise their approach towards *Bomba*: there is also a singular high sand-hill on the main behind it, called by the natives *Jibbel Ramla*; when these two come in a line, they will bear W. by S. $\frac{1}{4}$ S. (W. $\frac{1}{4}$ S.), and when *Ship Rock* is distant from you about half a mile in the above direction, you may safely pass in 16 fathoms.

N. by W. $\frac{1}{4}$ W. (North) from the *Island Bhurda*, distant 11 miles, is *Cape Razatin*, in latitude $32^{\circ} 34' 0''$ N., longitude $23^{\circ} 13' 10''$ E. There are several rocks about this Cape, most of which are above water; within these is the small Port of *Razatin*, forming a sort of harbour for small vessels.

DERNA. From *Cape Razatin* the land runs W. N. W. $\frac{1}{4}$ N. (N. W. $\frac{1}{4}$ W.) to the *Town of Derna*, a distance of 29 miles. This is a considerable town, and gives its name to the surrounding district. Before the town are the *Folfell Islands*, within which vessels commonly anchor: two little rivulets run by the town, affording a supply of water to the inhabitants. From *Derna* the coast continues W. N. W. (N. W. $\frac{1}{4}$ W.) to *Point Tourba*, and then W. N. W. $\frac{1}{4}$ W. (W. N. W. $\frac{1}{4}$ N.) to *Cape Heital*. In following the shore from *Derna* to the westward, you will see the little rocky *Islet of Al Hyera*, lying at a small distance from the land; there is also a rock under water off *Point Tourba*. About midway between this point and *Ras al Heital* is *Al Throan*, where there is a little rivulet; and on the eastern side of *Ras al Heital* a cove, into which also another small stream empties itself. Nearly all the coast from *Derna* to *Heital* is rocky, and the interior mountainous. From *Ras al Heital* the land continues westerly to *Cape Razat*. About 13 miles before you come to this Cape is the little Port of *Marsa Souza*, formerly called *Apolonia*, and the sea-port of the ancient City of *Cyrene*. The modern name of this place is *Grenna*.

GULF OF SYDRA. From *Cape Razat*, which may be considered the eastern extremity of the *Great Gulf of Sydra*, the coast runs W. by S. $\frac{1}{4}$ S. (W. $\frac{1}{4}$ S.) to *Point Tolometa*, a distance of 28 miles: the shores are steep, and when you get within 2 leagues of the point, you will observe some rocky islets close into the land; give this part a berth, and proceed along in no less water than 18 and 14 fathoms, until having rounded the point, when you will see the old *Town of Tolometa*. Steer W. S. W. $\frac{1}{4}$ S. (W. by S. $\frac{1}{4}$ S.), which is the direction of the coast for about 7 leagues; and you will pass *Sarawal*, *Bootraba*, *Booffaya*, and arrive at the *Village of Teukera*, 12 leagues beyond which are the *Town and Port of Bengasi*.

BENGASI has a good though small harbour, frequented by vessels which carry on a considerable commerce with *Marseilles*, *Venice*, *Tripoli*, and other places in the *Mediterranean*. The castle is in latitude $32^{\circ} 6' 50''$ N., longitude $20^{\circ} 2' 56''$ E. To enter the Port of *Bengasi*, pass near the northern islands, which run out from the *Castle Point*, and keep towards the larboard shore; for the southern part of the port has a bank of shallow water before it. The passage in is narrow, but, when within, you will have 2 and 2 $\frac{1}{2}$ fathoms water. From *Point Tejonas* the land runs S. $\frac{1}{4}$ E. (S. $\frac{1}{4}$ W.) towards the little Port and *Town of Karkora*. The shore all the way from *Bengasi* to *Karkora* is low and sandy, the soundings gradual, and there is no danger whatever: at 2 miles from the land are 5, 6, and 7 fathoms, deepening regularly to 28, 29, and 37 fathoms; sand, stones, broken shells, and coral; the latter depth is about 10 miles from the coast. At the entrance of *Karkora* is a rock above water. To the southward of

Karkopa is a lake of salt-water, running in a direction parallel to the coast: the ground is low and swampy, and inclines nearly S. E. (S. E. $\frac{1}{2}$ E.) so far as the Village of Sahar; it then turns S. W. by S. (S. S. W.) to Shiebah. About 3 leagues from Sahar, some rocky reefs begin; these project westward from the coast, and must always be guarded against: they continue along shore for the space of 9 miles, and are called the Hammoot Rocks. Having passed these, you will perceive the *Gharra Island*: a reef runs out from this island more than half a mile to the westward, 3 miles to the S. W. $\frac{1}{2}$ S. (S. W. $\frac{1}{2}$ W.) of which are the *Bird-Raths* above water, with some sunken rocks around them, and between them and *Gharra* is a rocky patch of 3 fathoms; therefore it will be always prudent to give these islets a good berth, and not go between them and the land S. W. (S. W. by W. $\frac{1}{2}$ W.) from the Village of Shiebah is the *Island of Ischiafa*, which lies near the shore, and has a rock under water at its south-western end; there is also a little knoll lying N. by W. $\frac{1}{2}$ N. (N. $\frac{1}{2}$ W.) from *Ischiafa*, distant 4 miles, and situated between it and *Gharra*. Opposite the *Island of Ischiafa* is the Village of *Alham Lakmuh*, a little to the southward of which are several sand-hills. Between *Alham Lakmuh* and these sand-hills are the *Lakes of Agan*, which extend a considerable distance inland. The land from *Shiebah* continues in a south-westerly direction to *Marsa Braiga*, a little port where small vessels find anchorage. To the southward of *Braiga* are some very white sand-hills; the dunes are otherwise low, and abound with inland lagoons, behind which the land rises to a considerable height. W. by S. $\frac{1}{2}$ S. (W. $\frac{1}{2}$ S.) from *Marsa Braiga* is the little *Island of Buchaifa*, lying at the bottom of the gulf, and near the main-land; coasting vessels occasionally find anchorage here as well as at *Marsa Braiga*, but there is no place of safety hereabout for larger ships; and although there are gradual soundings all along the land, you are nowhere sheltered from the winds and sea. From *Buchaifa* the coast runs W. N. W. (N. W. $\frac{1}{2}$ W.) towards *Linoof* and *Point Ali*; in your way you will pass *Mukdah* and *Albanbaz*; to the southward of the former, inland, are mines of sulphur, the produce of which is usually brought to *Mukdah*, there being a road made from the mines for that purpose. Off *Point Ali* are some rocks under water; and hereabout begins an extensive bank, stretching outward to the sea full 15 miles, and continuing along shore all the way to *Boosaida*; it is commonly called the *Bank of Kudia*, within which the water is not so deep as off *Boosaida*, and to the westward. There is a dangerous rock or shoal reported to lie about the environs of this bank; but it was not discovered by Captain Smyth in his survey of this part, and therefore its existence or position is uncertain. The environs of the *Town of Kudia* is the highest part of the gulf. A little before you come to *Cape Licontah* are some remarkable red sand-hills, named *Lubrick*, which will serve to distinguish this part. There is also a small island off the *Point of Cape Licontah*, from which to *Boosaida* the bearing and distance are W. by N. $\frac{1}{2}$ N. (W. N. W. $\frac{1}{2}$ N.), 16 miles; an extensive salt-lake runs along in the direction of the shore; and to the westward of *Boosaida* are others. From *Boosaida* to *Rum Point*, or *Eski*, the course and distance are N. W. by W. $\frac{1}{2}$ W. (N. W. $\frac{1}{2}$ W.) 8 miles; and from *Rum Point*, W. N. W. $\frac{1}{2}$ N. (W. N. W. $\frac{1}{2}$ N.) 8½ leagues, and W. $\frac{1}{2}$ N. (W. N. W. $\frac{1}{2}$ W.) 6 leagues, to *Marsa Zaphran*. At *Marsa Hunimar* is a cove where small vessels may enter, and so they may at *Zaphran*; but there is little depth of water at either place: the shores are moderately high all along; but from *Zaphran* low land begins, and extends to *Cape Mesurata*, the western end of the gulf. From *Marsa Zaphran* the coast stretches W. $\frac{1}{2}$ N. (W. N. W. $\frac{1}{2}$ W.) to *Ziraffe* and *Mhad Hussin*; near the former village a reef runs out, and extends along shore to *Matrao*, full 16 miles. Fourteen miles to the W. N. W. $\frac{1}{2}$ N. (N. W. $\frac{1}{2}$ W.) of *Matrao* are the *Jend Rocks*, lying off the low land to the distance of 3 miles; from hence the shore winds circularly towards *Cape Mesurata*. Off *Khurra Point* are some sunken rocks, and at a little distance a small knoll of only 4 fathoms water; but between it and the point are 7 fathoms. From abreast of *Matrao Point* a bank of soundings extends, reaching 10 leagues from the land; it is usually called the *Bank of Isa*, and the depth of water gradually decreases from 32, 30, and 25 fathoms near its outer part, to 7, 5, and 4 fathoms as you approach the shore: vessels may anchor on any part of it on a bottom of sand, or sand and sea-weeds. On its outer edge the sand becomes coarse, and the depth suddenly increases to 34, 61, and 67 fathoms; and about *Khurra Point* it is generally rocky. *Cape Mesurata* is in latitude $32^{\circ} 26' 25''$ N., and longitude $15^{\circ} 10' 0''$ E. Captain Smyth states, that, on this part of the coast from *Cape Razat* to *Cape Mesurata*, commonly called the *Gulf of Sydena*, or *Great Syrtis*, there are few or no

dangers, excepting little heads of rocks scattered about different points; and the tides are insignificant. With the hand-lead going, a vessel may approach all parts; but of what utility can it be to enter here, there being but one place in the whole gulf worthy of being called a port. We could find anchorage for small vessels only at *Bushafa* and *Beiga*, at the bottom of the gulf; and *Gharra Island*, *Karhoraj*, and *Bengasi* on the eastern coast.

From *Cape Mesurata* the land takes a $W. \frac{1}{2} N.$ ($W. N. W.$) course to *Ras al Zahr*, distant 10 leagues. About half-way between them is the *Village Zordig*, where some rocks begin, which extend, in a circular form, all the way to *Ras al Houd*. There are 5 and 7 fathoms within these rocks; but no stranger should attempt to take his vessel between them and the shore. Beyond *Ras al Houd* are the *Oriz Cliffs*; and further on the *Village of Munchin*. To the westward of *Ras al Zahr* is the *Marra Zilliten*, where small craft occasionally run in; the *Town of Zilliten* lies inland. The coast about *Ras al Zahr*, and from thence to *Marsa Zilliten*, has a number of small rocky islets about; but these lie close in-shore. From *Ras al Zahr* the coast runs $W. \frac{1}{2} N.$ ($W. N. W.$) to the *River Cyniphus*; in your way you will see several small sand-hillocks; the land is otherwise low. A little beyond *Cyniphus* a point of land projects, which is commonly called the *Point of Tabia*, forming a kind of cove, sheltered by two or three little islands. From *Point Tabia* a low shore extends $N. W. \frac{1}{2} W.$ ($N. W. \frac{1}{2} N.$) towards *Lebida*, a distance of $1\frac{1}{2}$ miles.

LEBIDA, or **LEBDA**, stands upon the sea-shore, at a distance of about $1\frac{1}{2}$ mile to the east of the villages, and was formerly divided by a river, the mouth of which formed a spacious basin, which undoubtedly was the port, and defended by a strong fortress on each side of the entrance; these are still in tolerable preservation. This river is now a small stream. Proceeding $N. W. \frac{1}{2} N.$ ($N. N. W. \frac{1}{2} W.$) 6 miles from *Lebida*, you will pass the *Village of Ligala*, and *Ras al Sihan*, from whence a $W. by N. \frac{1}{2} N.$ ($N. W. by W.$) course will take you to *Ras al Hamra*, the distance being 15 miles.

Ras al Hamra is a projecting point, having some rocks about it; the mariner should give it a good berth; the whole coast to *Point Setarra* being surrounded by a sandy flat. From *Ras al Hamra* to *Point Setarra* the course will be $W. \frac{1}{2} N.$ ($W. N. W.$), and from *Setarra* to the *Wad al Deniseid* $W. \frac{1}{2} S.$ ($W. \frac{1}{2} N.$), 6 miles; and to *Wad al Ramil*, $9\frac{1}{2}$ miles; the land then turns $W. N. W. \frac{1}{2} N.$ ($N. W. \frac{1}{2} W.$) for 15 miles, to *Point Tajoura*; here the shore becomes rocky, and somewhat elevated. Within this point, and on the eastern side of a little river, stands the *Village of Tajoura*; off the entrance of the river is a roadstead, quite unsheltered. From *Point Tajoura* the coast runs $W. \frac{1}{2} N.$ ($W. N. W. \frac{1}{2} W.$) and $W. S. W. \frac{1}{2} S.$ ($W. \frac{1}{2} S.$) to *Tripoli*, the distance being nearly 9 miles. The appearance of the land here is low and sandy, with some pine-trees, by which the *Harbour of Tripoli* may be distinguished; for to the westward of *Tripoli* the land, although equally low, has no trees. The *Castle of Tripoli* is in latitude $32^{\circ} 53' 58'' N.$, longitude $13^{\circ} 10' 58'' E.$

THE CITY OF TRIPOLI is the capital of that State, and the only commercial place of real importance on the whole of that extensive coast. The city is of great extent, although a large portion of the space contained within its walls is untenanted. The situation of the town is low, being constructed upon a neck of land, projecting a short distance into the sea. There are two great markets held weekly; one on the sands behind the town every Tuesday, and the other on Fridays about 4 miles off, among the gardens of the *Messeah*, which form a stripe of 3 or 4 miles in breadth, between the beach and the desert. In the town are bazaars, which are open every day. The harbour is commodious for small vessels, and protected by 115 pieces of cannon, with a numerous garrison. In front of the town is a long range of rocks and shoals, extending more than 2 miles to the eastward of the city, with passages between them leading into the harbour. Vessels coming from the *Island of Malta* will round the south-eastern point of that island, and steer $S. S. W.$ ($S. W. \frac{1}{2} S.$) for *Tripoli*, the distance being about 63 leagues; or coming from the westward, a $S. by E. \frac{1}{2} E.$ ($S. \frac{1}{2} E.$) course from *Cape Bon* will carry them to the same point. It will, however, be somewhat difficult for the mariner to distinguish the different points of land in the vicinity of *Tripoli*, unless he should fall directly in with the city itself; and this stands so low, that he will not be able to recognise it until he gets very near, when the pine-trees to the eastward may contribute to point out its situation. There is a double land, which, when you are 3 leagues from the shore, makes like a headland, or *Cape*, but is far up the country; when this land bears $S. S. W.$ ($S. W. \frac{1}{2} S.$), and you are at the above distance from the shore, *Tripoli*

will bear S. W. $\frac{1}{4}$ W. (*W. S. W. $\frac{1}{4}$ S.*), distant 6 leagues. There are other hills which make in a similar form; but these are further inland, and when bearing S. by W. (*S. S. W. $\frac{1}{4}$ W.*), the town will be South (*S. by W. $\frac{1}{4}$ W.*), and the land to the eastward S. by E. (*S. $\frac{1}{4}$ W.*).

Or when coming from the eastward, at the distance of 10 or 12 miles from Tripoli, you first perceive the above-mentioned cluster of pine-trees, and afterwards the high land appearing over the low land, like two capes, or headlands, then you should stand on to the westward, keeping at the distance of 3 or 4 leagues from the land, until you perceive the trees on Tajoura Point. Do not come nearer this point than to get 9 or 10 fathoms, until you open the French Fort to the northward of the Spanish Fort: the former of these is built upon a little rocky islet to the northward of the city; the latter stands upon the craggy point which projects to the north-eastward of the city. Having done so, and the French Fort bearing S. W. by W. (*W. S. W. $\frac{1}{4}$ W.*), you may steer on; this mark will carry you clear to the northward of the outer or N. E. reef, the eastern part of which lies N. N. E. $\frac{1}{4}$ E. (*N. E. $\frac{1}{4}$ N.*) from Kaliusa Point, distant $1\frac{1}{2}$ mile, and has in some parts only 9 feet water over it. Having passed this reef, endeavour to bring English Fort, which stands near the Consul's garden in the Messeah, to bear S. by E. (*S. $\frac{1}{4}$ W.*); this will lead you to the westward of the Kaliusa Shoal, between it and the Harbour Rocks; and when the Pasha's Castle comes S. W. $\frac{1}{4}$ W. (*W. S. W. $\frac{1}{4}$ S.*), steer in with that mark on for the anchorage. The Pasha's Castle brought to bear S. W. by W. (*W. S. W. $\frac{1}{4}$ W.*) will carry you within the N. E. and Kaliusa Reefs, in from 7 to 4 fathoms water; but in this passage you should not approach nearer to the shore than the distance of half a mile, for within that space there are some spots of shallow water, and rocky ground.

The best anchorage in the outer Road of Tripoli is with the westernmost minaret, or steeple, within the town, bearing South (*S. by W. $\frac{1}{4}$ W.*), in 16 fathoms water. The eastern part of the bay will then bear E. S. E. $\frac{1}{4}$ E. (*S. E. by E. $\frac{1}{4}$ E.*), and the round castle on the east side of the bay will be in one with the second rock, bearing S. E. by S. (*S. S. E. $\frac{1}{4}$ S.*). To anchor within the port, bring the Pasha's Castle to bear S. W. $\frac{1}{4}$ W. (*W. S. W. $\frac{1}{4}$ S.*), the Spanish Fort West (*W. by N. $\frac{1}{4}$ N.*), and the English Fort E. by S. (*E. S. E. $\frac{1}{4}$ S.*) in 5 $\frac{1}{2}$ or 6 fathoms, sandy ground: here you will be protected from the sea, when the winds blow from the North or N. E., the sea being broke by the outer rocks and shoals, and making the water smooth inside. Near the Spanish Fort is the lazaretto, and within that a small mole, or quay, forming the landing-place for the boats. The arsenal is to the southward, and close to the Pasha's Castle. There is a passage between the rocks which run off the Spanish Fort, and the western part of the Harbour Rocks; but this channel is very narrow, and has not more than 15 feet water: any vessel may, however, stand close to the northern side of the rocks, and have 6, 7, and 8 fathoms water; while a first-rate vessel may ride within pistol-shot of the Spanish Fort, and have 9, 10, 15, and 16 fathoms.

From Tripoli the land runs W. S. W. $\frac{1}{4}$ W. (*W. $\frac{1}{4}$ S.*), about 14 miles to Syadah, and then West (*W. by N. $\frac{1}{4}$ N.*), 24 miles, to Tripoli Vecchia; at this place is a little port or harbour, only calculated to admit small craft. The land is generally low, and without trees; but there are several villages upon the shore, of little importance. A sandy flat runs along the land, and the coast is in some parts rocky. From Tripoli Vecchia W. by N. $\frac{1}{4}$ N. (*N. W. by W. $\frac{1}{4}$ W.*), distant 20 miles, is the Town of Zoara, having a roadstead, which small vessels commonly resort to for salt and salt-fish. From Zoara the land stretches N. W. by W. (*N. W. $\frac{1}{4}$ N.*) to Ras al Mahabes, a distance of 22 miles. Behind this headland a narrow channel runs in to the Port of Bucechia, within which are 5, 4, and 3 fathoms; but at its entrance is a bar of only 9 feet water. The land from hence continues in a W. N. W. $\frac{1}{4}$ N. (*N. W. $\frac{1}{4}$ W.*) direction, 18 miles, or to Al Biban Rock; this lies at the entrance of a spacious lagoon of a triangular form, within which are $3\frac{1}{2}$, 3, $2\frac{1}{2}$, and 2 fathoms water. N. W. $\frac{1}{4}$ N. (*N. N. W. $\frac{1}{4}$ W.*) from the entrance of Al Biban is the Ras el Zargiss, upon which is erected a fortress: here the territory of Tripoli terminates, and that of Tunis commences. Between the Ras el Zargiss and the Rock of Al Biban, a shallow flat runs out to seaward nearly 12 miles, at the eastern end of which is the rocky ledge of Zera, with only 6 feet water over it: none but small vessels can go between this rock and the land, on account of the little water there is upon it; but to the northward of this flat there is a kind of roadstead for small craft.

All along the shores of Tripoli there are soundings, which, in many places, continue to a considerable distance from the land: these soundings run from Tripoli to

Cape Bon, and extend almost from the *Al Biban Rock* to *Malta*, *Linosa*, and *Sicily*.

3. THE COAST OF TUNIS, FROM RAS AL ZARGISS TO LA CALA.

Variation One Point and a Half West.

The State of Tunis extends along shore, from the *Ras al Zargiss*, in latitude $33^{\circ} 29' 30''$ N., longitude $11^{\circ} 10' 30''$ E., to *La Cala*, in latitude $36^{\circ} 52' N.$, longitude $8^{\circ} 24' E.$

Tunis has several ports, but, excepting the capital, these are very little frequented.

From *Ras al Zargiss* a N. by W. ($N. \frac{1}{4} E.$) course for 7 leagues will carry you to *Ras Trigamas*, the N. E. point of the *Island of Jerba*; this is a square-formed island, its length from east to west being about 20 miles, and its breadth from north to south 16. It is separated from the main by a narrow strait, which communicates with the *Gulf of Kabes*: the channel runs in to the eastward between the *Castle of Buchal* on the north side, and the *Kaliat Islets* on the south. Between the *Castle of Buchal* and *Point Menax* is good anchorage in 4 fathoms, opposite to a fortress; and a little to the northward of *Menax* is *Port Saggia*, fit only for small vessels. From *Point Menax* to *Ras Trigamas* there are several shoals of $2\frac{1}{2}$ and $3\frac{1}{2}$ fathoms, which must be carefully avoided.

THE GULF OF KABES is bounded on the south by the *Island of Jerba*, and on the north by *Cape Burdj Kadija*. On the northern Coast of *Jerba* stand the little *Town* and *Castle of Zug*. The southern shores of the *Gulf of Kabes* are generally low, but encompassed with high land behind. Here, situated on the coast, you will see the little *Villages of Cutana*, *Zarra*, *Biboo*, and a little to the northward of that is the *Town of Kabes*.

KABES stands at the foot of the mountains called *Jibbel Hamarra*: its situation is low, and on the south bank of a river of fresh water, having the *Village of Jarca* to the northward. *Kabes* has a small port, from whence dates, and henna for dying, are commonly exported; and the little *River of Kabes* is divided in the interior into a number of channels, for the purpose of giving water to the plants of henna, which they mostly cultivate, and which require a moist situation.

From *Kabes* the coast winds N. N. W. $\frac{1}{4} W.$ ($N. by W.$) to the *Village of Tafulama*, before which vessels bound for *Kabes* usually anchor. N. E. by N. ($N. E. \frac{1}{4} E.$) from this anchorage, distant 14 miles, are the *Surkenis Islands*. All the coast between *Jerba* and the *Surkenis Islands* is safe, having 7 or 8 fathoms at the distance of three-quarters of a mile, until you get within the vicinity of these islands, where it becomes shoal. On the largest of the *Surkenis Islands* are several ruins; but from thence towards the *Town of Sfaikus* there is nothing remarkable.

SFAKUS is a large town, enclosed within high walls, before which is a mole. Off this part, and between the town and the *Karkenna Islands*, the anchorage is good. From *Sfaikus* the coast runs $7\frac{1}{2}$ miles N. E. by E. ($E. N. E. \frac{1}{4} E.$) to the *Tower of Seedy Meseur*, and then N. N. E. ($N. E. \frac{1}{4} N.$) and E. $\frac{1}{4} N.$ ($E. by S.$) to *Burdj Kadija*, called also *Cape Vada*, upon which stands a lofty tower, visible 15 or 16 miles off, and therefore serving for a beacon, shewing the mariner's approach to the shoals adjacent. This tower forms the northern point of the *Channel of Karkenna*. The land between *Sfaikus* and *Cape Vada* is of considerable height, and constitutes the western side of the passage; its eastern side is enclosed by the *Karkenna Islands*. From its appearance it would seem to be a channel of great breadth; but it is, in reality, very narrow, being filled up with extensive rocky banks, and shoals of shallow water. Small coasting vessels pass along near the western shore, but require a pilot; the tides also contribute to make it more dangerous; for within this strait they run with the velocity of 24 miles an hour, and rise 5 feet. The time of high water is 30 minutes after 3, full and change.

The *Karkennas* are a cluster of low islands; the south-westernmost is called *Zara Lakalia*, having a tower erected upon its western end. The middle island is large, and irregularly formed, with seven villages on its western division, and three on its eastern side; the principal of these is called *Shagra*, which frequently gives its name to the whole island. The other islands are smaller, but they are all inhabited; and that towards the N. E. is named *Kusha*. To the eastward of *Shagra* are several rocks above water, which almost join the island, but they have no passage between. From thence a long point of sand stretches out full 14 miles; this is rocky and dangerous: other spits extend to the southward, so that no vessel can with safety approach these islands, but must always keep off to a considerable distance.

From *Burdi Kadija* to *Cape Africa* the course is N. $\frac{1}{2}$ W. (*N. by E.*), and the distance 21 miles: here stands the *City of Mahedia*. The port, formerly called *Colthon*, was once spacious, commodious, and safe, the strongest, finest, and richest place for maritime purposes in all this part of *Africa*. Even at this time it must be considered one of the strongest towns in *Tunis*.

From *Cape Africa* the course and distance to *Cape Demas* will be N. by W. $\frac{3}{4}$ W. (*N. $\frac{1}{4}$ W.*) 6 $\frac{1}{2}$ miles; between is a low sandy shore, with gradual soundings up to the very beach. Off the northern part of the *Cape* are the *Balta Islands*, from which a sandy reef runs out to the northward full 11 miles, having at its extremity the *Kuriat Islands*: these are three in number, and form the southern boundary of the extensive *Gulf of Hammamet*, its northern point being *Cape Tusihan*.

THE GULF OF HAMMAMET. From the N. E. end of *Kuriat Island* to *Cape Tusihan* the bearing and distance are N. by W. $\frac{1}{4}$ W. (*North*) about 40 miles. Several rocks lie about the N. E. point of the outer *Kuriat*; and between it and the middle, or *Conegliera Island*, is a channel, with 2 $\frac{3}{4}$ to 4 fathoms water; but to the southward of *Conegliera Island* there is no passage, except for boats. W. $\frac{3}{4}$ S. (*W. $\frac{1}{4}$ N.*) from *Kuriat Island*, distant 11 miles, are the *Point* and *Town of Monasteer*, to the northward of which is the *Pilgrim's Rock*, always above water. Between the *Kuriat Islands* and *Monasteer* is the *Bay of Lempta*, so called from a town on the coast between *Cape Demas* and *Monasteer*: here are the *Ruins of Leptis Parva*. There is good anchorage under the point to the southward of *Monasteer*, in 3, 4, 5, and 6 fathoms water. The sandy flat which encircles the *Kuriat Islands* continues round *Monasteer*, and so far as *Soussa*.

SOUSSA bears from the *Pilgrim's Rock* at *Monasteer* W. by N. $\frac{3}{4}$ N. (*N. W. $\frac{1}{4}$ W.*) distant 11 miles: here are a castle and mole. The town is strongly built, and situated near the sea, having good anchorage before it; but there is a sandy reef stretching off it, with only 2 and 3 fathoms water upon it. Outside of this reef are 7, 9, and 10 fathoms. From *Soussa* to *Herklah* the bearing and distance are N. by W. $\frac{3}{4}$ W. (*N. $\frac{1}{4}$ W.*) 10 miles. A sandy beach continues all the way from *Soussa* to *Hammamet*.

HAMMAMET is built upon a projecting head of land, forming a small harbour. It bears from *Herklah* N. by E. $\frac{1}{4}$ E. (*N. E. by N.*), distant 25 miles. In the roadstead before it there is good riding, except with easterly winds: the town is considerable, and gives name to the gulf. From the *Town of Hammamet* a sandy beach continues so far as *Cape Tusihan*, a distance of 11 miles.

The *Gulf of Hammamet* has throughout a clear sandy shore, with regular soundings and fair anchorage: the bottom is generally mud or sand. S. E. (*S. S. E. $\frac{1}{4}$ E.*) about 4 leagues from *Hammamet Town*, there is a spot of gravel, with from 18 to 21 fathoms over it, and with 24 and 27 fathoms close to it, and these gravelly soundings continue towards *Cape Tusihan*; but outside of these, and from hence to the *Island of Pantellaria*, it is all muddy ground.

Having quitted the *Gulf of Hammamet*, the coast from *Cape Tusihan* runs N. N. E. $\frac{1}{4}$ E. (*N. E.*) to *Ras al Mustafa*, a distance of 27 miles: the beach is all low and sandy. The soundings towards the shore are regular, and there is nothing remarkable the whole of the way. The *Ras al Mustafa* will be distinguished by the little *Town of Kalibia*, standing to the north-westward. From *Mustafa* to *Cape Bon* your course and distance will be N. by W. $\frac{1}{4}$ W. (*North*) 16 miles; between them are three headlands, *Ras al Melhr*, *Ras al Iswad*, and *Ras Iddah*. The first of these is a circular promontory one league to the northward of *Ras al Mustafa*: the second three leagues from *Mustafa*, having some rocks about it; and the third, *Ras Iddah*, is 3 $\frac{1}{2}$ miles from *Cape Bon*, from which it bears nearly S. E. (*S. S. E. $\frac{1}{4}$ E.*)

CAPE BON is in latitude 37° 6' 0" N., longitude 11° 2' 25" E., and may be seen at the distance of 15 or 16 leagues, being very high land. From its northern extremity the *Island of Pantellaria* bears E. S. E. (*S. E. $\frac{1}{4}$ E.*), distant 44 miles; *Marsala*, in *Sicily*, N. E. by E. (*E. N. E. $\frac{1}{4}$ E.*) 80 miles; the *Island of Maratimo* N. E. (*N. N. E. by E. $\frac{1}{4}$ E.*) 71 miles; and *Cape Spartivento* N. W. (*N. N. W. $\frac{1}{4}$ W.*) 145 miles. There is a bank of soundings running out from *Cape Bon*, and extending to the western part of the *Island of Sicily*; it commences about the eastern part of the *City of Tripoli*, and continues so far as the *Gulf of Bona*. Upon the northern part of this bank lie *Keith's Reefs* and the *Skerki Rocks*, dangers which have been fully described in page 125, to which the reader is referred.

THE GULF OF TUNIS is an extensive bay, the entrance to which is situated between *Cape Bon* and *Cape Farina*; these two *Capes* bearing from each other W. $\frac{1}{4}$ N. and E. $\frac{1}{4}$ S. (*W. N. W. and E. S. E.*), distant 39 miles. W. by N.

(N. W. by W. $\frac{1}{2}$ W.) from *Cape Bon*, distant 11 miles, is a triangular-shaped island, called *Zembra*; E. S. E. (S. E. $\frac{1}{2}$ E.) from which is *Zembratta*, a little islet, with some rocks about it. Neither *Zembra* nor *Zembratta* have inhabitants. Vessels entering the *Gulf of Tunis* from the eastward, will first discern *Cape Bon*, a high promontory, projecting from a narrow, low, and sandy isthmus; it appears at a distance like an island, the land to the southward being low, high at the northern part, and gradually sinking down towards the south-west. Having made and passed the *Cape*, you will proceed towards the high *Island of Zembra*; steer therefore W. by S. $\frac{1}{2}$ S. (West), and it will carry you to the southward of the *Islands of Zembratta* and *Zembra*, while a W. by N. $\frac{1}{2}$ N. (N. W. by W.) course will take you to the northward of them. In the former case, having brought the *Island Zembra* to bear North (N. by E. $\frac{1}{2}$ E.), distant 2 $\frac{1}{2}$ miles, a W. by S. $\frac{1}{2}$ S. (W. by S.) course will take you to the high bluff point of *Cape Carthage*.

From *Cape Bon* the coast runs westerly above two leagues, the high lands terminating at the *Ras al Amur*; off which there are some rocks that are dangerous, and therefore you must always give this point a good berth. Near *Ras al Amur* is a small fort, and to the southward are two little coves, in one of which stands the *Marabut of Seedy Daud*. The land now continues in a south-westerly direction to the *Wad al Abiad*, 4 $\frac{1}{2}$ miles to the westward of which is *Cape Zaphran*, called also *Ras al Durdas*. The land from *Seedy Daud* to *Cape Zaphran* is mostly low, rising up in the interior of the country. *Cape Zaphran* bears from *Cape Carthage* East (E. by S. $\frac{1}{2}$ S.), distant 13 miles, and from *Goletta* E. by N. $\frac{1}{2}$ N. (E. $\frac{1}{2}$ S.) 16 miles: between them the coast bends inwards, and forms a circular bay, commonly called the *Bay of Carthage* or *Tunis*. The ground within this bay holds well, in from 10 to 4 fathoms water; and although the anchorage here is open to the N. E. winds, they seldom blow home, or cause any great swell of the sea. Here the heat is frequently excessive.

The best anchorage in *Tunis Bay* is in 5 or 6 fathoms, soft muddy ground, with *Cape Carthage* bearing N. N. E. $\frac{1}{2}$ E., or N. E. by N., and the *Goletta Castle* between N. W. by W. and West. Winds that occasion the most sea are from the N. E. to E. S. E.; but, as before observed, the ground holding well, a fleet might rendezvous here during the most tempestuous weather, mooring with the best bower to the eastward, and small bower to the westward. The bay is so extensive, that vessels may ride within it, out of reach of the cannon; and fresh water may be procured from a reservoir within the *Goletta*. The soundings in a direct line from *Cape Zaphran* to *Cape Carthage* are 12, 18, 25, 27, 24, 15, 8, 5, and 4 fathoms; within the bay, in the centre, are from 20 to 10 fathoms, gradually decreasing towards the shore. The soundings over the *Gulf of Tunis* are much deeper, being in the middle from 40 to 60 fathoms; and in a line from the *Island Zembra* to *Cape Farina* are 72, 65, 70, 58, and 60 fathoms, lessening as you approach the land.

THE CITY OF TUNIS is the capital of the province of that name, and situated in latitude 36° 46' 40" N., and longitude 10° 6' 13" E. It stands on a plain, surrounded, on all but the eastern side, by considerable heights, but separated from the sea by an extensive lagoon, or basin of shallow water. There is a wall with five gates. The citadel, called *El Gaspa*, is in a ruinous condition, and commanded by the neighbouring heights. There is also a rising ground on the north, which commands both the town and the *El Bardo*, a fortified Palace of the Bey. The buildings are principally of stone, yet in general have a mean appearance, being one story high, with flat roofs for collecting rain-water. The city is supplied with water, not only from the rain collected on the tops of the houses, and conducted to cisterns below, but also by an aqueduct from a neighbouring spring.

The Port of Tunis is to the south-westward of *Cape Carthage*, between 5 and 6 miles from the *Goletta*, where vessels may enter through a canal constructed of stone, which has at all times 15 feet water within it: the entrance is defended by two fortresses of considerable strength, and in good repair. But ships loading and unloading must lie off, in the roads, in from 5 to 7 fathoms, on a bottom of mud, from whence their cargoes are transported to Tunis in large lighters. These lighters draw very little water, and are built to navigate throughout the lake, coming occasionally to the very borders of it, just below the city: while vessels desirous of availing themselves of the convenience of the inner port, may enter the *Goletta*, on paying a duty of three Spanish dollars per day. The lagoon between the *Goletta* and *Tunis* is of an oval form, and about 20 miles in circumference.

Ruins of Carthage. The site of this ancient city is within the promontory which

now bears the name of *Cape Carthage*, on the north-east side of the *Lake of Tunis*, and distant about 10 miles from that city. The existing ruins are nearly 3 miles distant from the sea, although *Carthage* once extended to the very shore; but the ancient harbour is now choked up; yet it still retains its former name, *El Marsa*, or the Port.

On *Cape Carthage* a lighthouse has lately been erected, which is lighted regularly every night. The light is on the revolving principle, performing a revolution every three minutes.

CAPE FARINA, the north-western point of the *Gulf of Tunis*, bears from *Cape Carthage* N. by W. (*N. $\frac{1}{4}$ E.*), distant 19 miles, and is in latitude $37^{\circ} 10' 55''$ N., longitude $10^{\circ} 14' 30''$ E. About 2 miles to the eastward of the point is a little low island, called *Piana*: it may be approached on all sides to the depth of 4 fathoms, and in the channel, between it and the *Cape*, are 7, 9, and 10 fathoms: but there is a small spot to the N. N. E. (*N. E. $\frac{1}{4}$ N.*) of the north-eastern point of the *Cape*, with only 4 fathoms: this lies abreast of the little rocky *Islet of Pila*. There is a passage between the shoal and the *Cape*, with 7 fathoms in it; and also between *Pila Rock* and the main, with 8 fathoms.

CANE ISLANDS. Two rocky islands lie off *Cape Zibet* N. N. E. $\frac{1}{4}$ E. (*N. E.*), distant $5\frac{1}{2}$ miles, and bear from *Cape Farina* N. W. $\frac{1}{4}$ N. (*N. N. W.*), distant 14 miles: they are very dangerous, and have several rocks under water about them. They are called *Cane*, or the *Dogs*. There is a good channel between these islands and the shore, with a depth of 10, 18, and 23 fathoms. In making for *Cape Farina* from the westward, you should keep a good look-out for the *Cane Rocks*; and it requires equal care in approaching towards the *Island of Piana*, particularly by night, or in hazy weather.

PORT FARINA. About 4 miles inside of the *Cape of Farina* is the entrance to the port: this is a large but shallow inlet, and will not admit large vessels; but the roadstead before it is nearly as commodious as that of *Tunis*. Here the *River Medjerda* falls into the sea, and is the most considerable stream in *Tunis*.

BIZERTA. *Cape Zibet* is the north-eastern point of the Bay, or *Gulf of Bizerta*; its western point, called *Ras al Abiad*, or *Cape Bianco*, bearing from *Cape Zibet* W. by N. $\frac{1}{4}$ N. (*N. W. by W.*), distant $10\frac{1}{2}$ miles. This bay is about 4 miles deep, and has on its western side the Town, Port, and Lake of *Bizerta*. This was formerly one of the best ports in *Tunis*, and still is good, though now seldom frequented, except by small vessels. The town is about a mile in circumference, and defended by several castles and batteries. The shores of the bay are chiefly composed of sandy down; and there is good anchorage at a distance from the shore in 5, 6, and 7 fathoms. The lake runs in to a great extent, and is said to have a depth in some places of 40 and even 60 fathoms; but its entrance from the sea is narrow, and has not more than 9 feet over the bar.

From *Cape Bianco*, upon which you will see a signal-house, the shore runs westerly to *Ras al Khrun*, a distance of 9 miles: about midway between them is a rocky point which will require a berth to be given to it. From *Ras al Khrun* a W. by S. $\frac{1}{4}$ S. (*West*) course will carry you to *Cape Serrat*, or *Ras al Munshihar*. In your way you will see the *Fratelli Rocks*: these are two or three rocky islets lying about $2\frac{1}{2}$ miles off the land, bearing from *Ras al Khrun* W. by S. (*W. $\frac{1}{4}$ N.*) distant 12 miles, and from *Cape Serrat* E. N. E. (*E. $\frac{1}{4}$ N.*) 11 miles. The coast between *Ras al Khrun* and *Cape Serrat* forms an irregular concavity, and in sailing along it, you will have from 9 to 23 fathoms; but on the outside of the *Fratelli Rocks* you will deepen your water considerably, having 58 fathoms a mile off; 104 at the distance of 10 miles to the northward; 220 at the distance of 18 miles; and soon after, no ground.

GALITA ISLAND. N. W. by N. (*N. by W. $\frac{1}{4}$ W.*) from *Cape Serrat*, distant 7 leagues, is *Galita Island*; it lies in a circular position, is about 3 miles in length, one mile broad, and of moderate height. Off its north-eastern point are some small but high rocks, called the *Sandfort*, and the *Dog*, having a sunken rock more to the northward, with a depth of 3 fathoms over it. About half a league from the S. W. end of *Galita* are two other rocks, above water, called *Galitona* and *Agulia*: there is a channel between these rocky islets and *Galita*, with from 10 to 20 fathoms water; but, with the exception of the southern side of *Galita*, all the shores are rocky.

Vessels coming from the northward, eastward, or north-westward, with the intention of anchoring in the *Southern Road of Galita*, must take care and give a good berth to the rocks off the N. E. point of the island; and having passed them in from 10 to 15 fathoms, run on in a similar depth for the east end of *Galita*, which you may

near to within a cable's breadth; then rounding this point, turn in to the westward for the roadstead, about the middle of the island. There are two creeks; and near the western one, not far from the water-side, is a patch of grey land, opposite to which is the best anchorage, in 10 or 11 fathoms water, on sandy ground, and close in to the shore. Here you will be sheltered from North, N. W., and N. E. winds; but during gales from the northward the sea will run round the island, and cause vessels that lie at any considerable distance, to roll very deep. Remember always, when the wind blows fresh, to reduce your sails before you attempt to pass under the lee of the island; for from the peak at the east end it frequently comes down in such sudden gusts, that your masts will otherwise be endangered: under such circumstances you may anchor under the eastern point of the island, where you will have 20 and 22 fathoms water.

Or, when coming from the westward, a vessel may run in between the *Galitona* and *Agulia Islets* and the *Island of Galita*; and having passed them, steer up to the roadstead, and anchor as before directed: but in advancing this way, you must be particularly careful to avoid the *Sorelli Rocks*, which lie W. S. W. $\frac{1}{2}$ S. (*W. by S.*) from the west end of *Galita*, distant 13 miles; these are two small Rocks, lying $1\frac{1}{2}$ mile apart, with deep water all round them. On the south-western rock are 4 fathoms, but on the other there is much less water; they are therefore extremely dangerous. Vessels going between *Galita Island* and the main land must be particularly careful, as they have no warning of their approach towards these dangers by the gradual decrease of water; for $1\frac{1}{2}$ mile off, to the westward of them, there are 100 and 109 fathoms, and a little outside of that, no ground with 150 fathoms of line. *Galita Island* S. E. end is in latitude $37^{\circ} 30' 50''$ N., longitude $8^{\circ} 54' 0''$ E.

From *Cape Serrat* the coast runs S. W. $\frac{1}{2}$ W. (*W. S. W.*), 14 miles, to *Cape Negro*, which is a rocky point of land projecting into the sea, and appearing at a distance as an island: a little to the eastward of this stands a rock shaped like a pyramid. The shore is encumbered with rocks all the way from *Cape Serrat* to beyond *Cape Negro*; and from *Cape Negro* towards the *Island Tabarca* are several sand-hills. From *Cape Negro* to *Tabarca Island* the course and distance are S. W. $\frac{1}{2}$ W. (*W. S. W. $\frac{1}{2}$ S.*) 13 miles: it is situated at a little distance from the shore, and lies directly off the mouth of the little *River Wad Ezzeine*, being about $1\frac{1}{2}$ mile in circumference. On the north end of the island is a castle with four or five towers; and on a point on the main land are two corn magazines. When within this island, you will meet with a ledge of rocks, running out about two ships' length from the main, near where the corn magazines are situated, having 12, 9, 6, 5, 4, and 3 fathoms over it; but this always is pointed out by the breakers, especially with northerly winds.

Should a ship with a N. E. or N. W. wind be coming from seaward, she may sail for the eastern point of *Tabarca Island*, and let go her anchor 3 or 4 ships' length to the eastward of the ledge, where she will have 5 or 4 fathoms water, carrying a fast on shore; or she may anchor about half a ship's length from the northern magazine: then, should it not be convenient to use your own boat, fire a gun, when a pilot will immediately come off, and carry your fast on shore: you may then heave two or three ships' length further in, when you will have better shelter, with an anchor to seaward: but your cable ought to be good, and fastened to the rock that is more than 5 feet above water; for should a storm come on, and the cable give way, your vessel will inevitably be lost. The river, too, with a north-westerly wind, runs so rapid, that a ship will hardly be able to ride here; but you may go to the road behind the rock, in 17, 18, or 20 fathoms, where you will lie in safety even during a gale from the West or W. N. W.; should it be from the North, or N. N. W., it will be better for you to lie outside of the rock, where you will have 9 or 8 fathoms, near the little castle, and to the eastward of the great castle: here you must ride with two anchors. Take care to lie close to the shore, and you will be safe during West and W. N. W., East, and E. S. E. winds; but this place is not calculated for vessels requiring much water: ships drawing 18 or 20 feet should not attempt to anchor here, but go outside the island, in 8 or 9 fathoms; they will then be sheltered during westerly winds, but not with North or N. N. Westerly ones, these latter blowing right upon you. There is also a road to the westward of *Tabarca*, but with only 10 feet water.

From the western side of the island a bank runs out, between which and the main there is a channel, leaving the bank on the larboard side: outside of this bank are 10 and 9 fathoms; but within the bank the water becomes shallow. When entering within it, you may anchor to the northward, behind the island, near the shore, and moor with four hawsers, being sheltered from West and N. W. winds, which are the

worst that can blow here. Round *Tabarca* the ground is foul and rocky; except on its southern side, which has a little sandy beach, where the natives lay up their shallops during bad weather; to the westward of *Tabarca* are several rocks along shore, both above and under water. The land from *Tabarca Island* runs W. by S. 4° (West) to *La Cala*, where the Territory of *Tunis* terminates. From *La Cala* W. by N. 4° N. (N. W. 3° W.) course will carry you to *Cape Rossa* or *Cape Bufuhal*, so called from its red appearance. The coral fishery extends outwards about 6 leagues; the soundings gradually deepening from 7 and 8 fathoms near the land, to 60, 80, and 90 fathoms at the above distance; further out, and between that and the *Sorelli Rock*, there is no bottom at 110 and 200 fathoms.

4. THE COAST OF ALGIERS, FROM LA CALA TO THE RIVER MAHALA.

Variation One Point and Three Quarters West.

The Territory of *Algiers*, now under the dominion of the French, is bounded on the east by the Kingdom of *Tunis*; on the south by the Mountains of *Atlas* and *Blaid* at *Jerid*, or Country of *Dates*; and on the west by the confines of *Marocco*, containing a line of coast from longitude $8^{\circ} 24'$ E. to $2^{\circ} 15'$ W.

Proceeding along the coast from *La Cala*, your course will be W. by N. 4° N. (N. W. 3° W.) to *Cape Bufuhal*, or *Rossa*, and from this Cape to the Gulf of *Bona* W. 4° S. (W. by N.) From *La Cala* to *Cape Bufuhal*, and from *Cape Bufuhal* half-way towards *Bona*, the shores are rocky; but from the River *Musrouk* to *Bona* is a low sandy beach.

BONA is a considerable sea-port, and called by the natives *Blaid el Anch*, or the Town of *Jubebs*. Formerly there were a good harbour on the east side of *Bona*, and a small port under its very walls; but these are neglected, and now nearly choked up. The town is situated in latitude $36^{\circ} 53' 30''$ N., longitude $7^{\circ} 48' 20''$ E. N. by E. (N. N. E. 4° E.) from *Bona*, distant 5 miles, is *Cape Mavera*, and between them the little Cove or Port of *Genovese*, before which vessels may anchor in from 15 to 7 fathoms, under the protection of a small fort, but quite exposed to N. E. and Easterly winds, which never fail to send in a heavy sea.

From *Cape Mavera* the coast is high, irregular, and rocky for the space of 11 leagues, or until you reach *Ras Hadeed*, commonly called *Cape Ferro*. About 11 miles before you reach this Cape there is a cove, which vessels frequently run into, being somewhat sheltered by a craggy point of land, called *Toukoush*; and a little beyond *Cape Toukoush* is the Island of *Ferro*; there is a rock off its western point, and no vessel ought to go between this island and the main, for the coast is dangerous, and has many rocks scattered about it. *Cape Ferro* is the N. E. point of the Gulf of *Storah*; West (W. N. W. 4° W.) from which, distant 32 miles, is a large headland, called *Ras Sebbah Rous*, the Seven Capes, or *Cape Bugiaroni*. Between these two points is the Town of *Storah*, which gives its name to the gulf; and on the eastern side of *Cape Bugiaroni* is the Town of *Kolah*, where the French had an establishment for the coral fishery: it is situated in a sort of cove, and protected by the surrounding high lands.

Having rounded the projecting points of *Cape Bugiaroni*, viz. *Ras Ganarsh*, *Ras Frigana*, *Ras Zoorah*, and *Ras Alvah*, there is a sort of cove south of this latter point, called *Mersa Zeitoun*, and near that the *Wad al Kibbeer* enters the sea, which river comes from the interior of the country, and runs by its capital, *Constantina*, situated about 12 leagues inland. Your course thence will be W. by S. 4° S. (W. 3° N.) to *Jijeli*, a distance of 26 miles. *Jijeli* is a village, having a small port before it, where vessels drawing little water, may find anchorage between some islets and the shore. It forms the north-eastern point of the Gulf of *Bujeya*, *Cape Carbon* forming its north-western boundary. From *Jijeli* to *Cape Carbon* the course and distance are W. 4° S. (W. by N.), 10 leagues. When sailing from *Jijeli* to the westward, you will see some rocky islands near the shore, the westernmost of which is called *Zent al Heilat*: do not attempt to go between them and the shore, for the passages are narrow and rocky; but pass on to the northward of them, and a W. by S. (W. 3° N.) course will carry you to the Town of *Bujeya*.

BUJEYA is situated on the declivity of a mountain, being fortified, and has a castle standing on the summit of a hill, which commands both the town and its road.

stead. The port is large, and formed by a projecting neck of land which juts out to seaward. There is good anchorage off the town in 10 or 8 fathoms; but north and north-easterly winds are apt to occasion a heavy swell of the sea. Several rivers empty themselves into the Gulf of *Bujeya*, and on the shore are some villages; the principal one is named *Mansoureh*, and lies E. by S. (*S. E. by E. $\frac{1}{4}$ E.*) from *Bujeya*, on the south-eastern side of the gulf; there are several rocks about it, and many ruins on the shore. In coming from the northward or eastward, *Cape Carbon* may be known by several white hillocks within it, and also by the Islands or Rocks of *Pisan*, lying 2 leagues to the westward; near it is a rock perforated by the continual lashings of the sea. The Cape is steep-to, and may be rounded at a small distance.

From *Cape Carbon* the land runs W. N. W. $\frac{1}{4}$ N. (*N. W. $\frac{1}{4}$ N.*) about 4 leagues, towards *Cape Sigli*, from whence you may steer W. $\frac{1}{4}$ N. (*W. N. W.*) 11 leagues, passing the Villages of *Seedy David* and *Seedy Hamet*; you will then reach *Cape Dellys* or *Tedelles*. A similar direction for 6 leagues will carry you to *Cape Bingut*, from which the course and distance to *Cape Matifus*, or *Matafou*, will be W. $\frac{3}{4}$ S. (*W. by N.*) 11 leagues.

From *Cape Carbon* to *Cape Matafou* the coast is destitute of harbour or any place of note; the land is generally rocky and precipitous, with some few sandy beaches. The interior of the country presents the appearance of a vast sandy desert, occasionally occupied by the wandering tribes of Arabs, who are constantly shifting their residences, as the pasturage is found advantageous to their flocks and herds.

ALGIERS. The great Bay of *Algiers* is formed by *Cape Matafou* on the east, and *Cape Caxines* on the west; these points bearing from each other nearly West and East (*W. N. W. $\frac{1}{4}$ W.*, and *E. S. E. $\frac{1}{4}$ E.*), distant 10 miles; and the bay, from north to south, is full 6 miles deep. At the bottom of the bay are the Rivers *Hamase* and *Haratch*, and on its western side stands the City of *Algiers*.

The City of *Algiers* is the capital of the country, and built upon the declivity of a mountain, upon which the houses rise gradually in the form of an amphitheatre, terminating almost in a point at the summit. It is not considered to be above a mile and a half in circumference; but the population is estimated at 120,000. There are nine large mosques, and what was formerly the Dey's Palace has two great courts, surrounded with spacious galleries.

The city is surrounded by a wall 12 feet thick, 40 feet high on the sea-side, but only 30 feet towards the land, capable of little resistance in itself, as has been exemplified in the recent attack of the French, unless strengthened by additional fortifications, which has been done chiefly at the gates; and of these there are five. There are also four castles; but all these fortifications on the land-side are of little consequence, for it is the harbour only which can be considered well defended.

The harbour is a work of immense labour, formed by two moles, one running to the northward, the other south-west, and meeting at a little island, where stands a lighthouse, which exhibits a revolving light, disappearing every half-minute; in fine weather the flashes may be seen at the distance of five leagues; but the light does not entirely disappear at a less distance than three leagues. The citadel is of an octangular form, and stands on an eminence to the south-westward. The city is well supplied with water, several aqueducts having been made to convey water from the interior, and numerous fountains placed in different quarters of the town.

Besides the fortifications already mentioned, there are many forts and batteries all round the bay. At *Cape Matafou* stands a castle, built about half a mile to the southward of the pitch of the Cape; this castle is of a hexangular form, with three embrasures on each side, having both a ditch and drawbridge. About 2 miles S. S. W. (*S. W. $\frac{1}{4}$ S.*) from *Matafou Castle* is a fortress of nine guns; and about a similar distance from that, further up the bay, is a square castle, with four embrasures on each side; on the south shore is a fort, with from 6 to 8 guns, close to the eastern side of the river's entrance; and between the River *Haratch* and the town are several other forts and batteries, of from ten to fourteen guns each. Near the town-wall, on the southern side, is a square castle, and between this castle and the town is a fort with six or seven guns.

The mole is defended by the Lighthouse Battery, mounting three tiers of guns; the lower tier, having port-holes, and being under cover, is flanked with fortifications built out of the solid rock. The S. W. battery has two tiers of embrasures, and guns mounted; and all the northernmost tier is of very heavy metal. To the northward of the town-wall is another square castle, with a ditch and drawbridge, having several batteries both above and below it; this castle has two tiers of guns; and about half a

mile to the northward of it is a battery, which communicates with the castle. Nearly half-way between the above battery and Cape Caxines there is a strong battery, and on the point of the Cape another, with a castle behind it, about the distance of a musket-shot, having lines which communicate one with another.

All the batteries to the northward of the town are elevated 50 or 60 feet above the level of the sea; while all those to the southward of the town are low, and built upon the sandy shore. There is no landing-place but at the mole.

The Bay of Algiers is without any dangers, except those off the Point of Cape Matafou, and there they will mostly shew themselves; but, in 1826, Lieut. Slater discovered a bank of coral rocks, with only 5 feet water over it, about 2 miles north of Cape Matafou. Between the two Capes of Matafou and Caxines the water is deep, there being 40 and 50 fathoms midway: the soundings decrease very gradually as you advance within the bay. It may very readily be known, in coming from seaward, by the land on the eastern side of Cape Matafou being covered with sand-hills, close to the water's edge; while to the westward of Cape Caxines there are no such hills, the land presenting a steep iron-bound coast. You will see, as you enter the bay from the north-westward, two rocks above water, between which there is a narrow passage, and through this the coasting vessels frequently pass. By keeping the horizon in sight between these rocks, you will go clear of the rocks at the head of the mole, and directly to the anchorage.

The best anchorage in Algiers Bay is to bring the northernmost land to bear N. W. $\frac{1}{2}$ W. (N. W. by N.); the Lighthouse, W. N. W. $\frac{1}{2}$ W. (N. W. $\frac{1}{2}$ W.); the Entrance of Haratch, S. by E. $\frac{1}{2}$ E. (South); and Cape Matafou, E. N. E. $\frac{1}{2}$ E. (East), in 22 or 24 fathoms, sandy ground; you will then be about 2 $\frac{1}{2}$ miles off the mole-head. H. M. S. Tiger anchored in 32 fathoms, soft mud, the centre of the town, with half the mole open, bearing W. $\frac{1}{2}$ S. (W. N. W. $\frac{1}{2}$ W.); Cape Caxines, N. N. W. $\frac{1}{2}$ W. (N. W. $\frac{1}{2}$ W.); and Cape Matafou, E. N. E. $\frac{1}{2}$ E. (E. $\frac{1}{2}$ S.) Here she remained five days, and found a current invariably setting to the north-westward, sometimes at the rate of 1 $\frac{1}{2}$ knot an hour: this is not a good place for winter anchorage, but in summer you may anchor any where. Good water is readily obtained, and provisions are plentiful and cheap; but wood is scarce. The winds are generally from the sea, from the west, by the north, to the east. Easterly winds are common from May to September, when westerly winds take place, and become most frequent. Sometimes, on the approach of the equinoxes, you will experience the force and impetuosity of the S. W. winds, called here the *La-betch*. Winds from the West, N. W., and North, are commonly attended with fair weather in summer, and rains in winter; but the easterly Levanters, no less than the southerly, are for the most part dry, though accompanied, in most seasons, with a hazy atmosphere. Algiers Lighthouse is in latitude 36° 48' 30" N., longitude 3° 1' 20" E.

From Cape Caxines the land turns W. by S. (W. $\frac{1}{2}$ N.) to Ras Agmâthyr, a little to the westward of which is a sandy beach, commonly called *Sydy Ferrouj* Bay; here the French landed their troops in the year 1830, previous to their attack upon Algiers. The bay is open, and the anchorage totally unsheltered. From hence E. by N. $\frac{1}{2}$ N. (East), at the distance of 8 leagues, is Ras Amousch, across a bay, in which, to the east, is Foukah; and the River Mâa el Zufran; and to the S. E. $\frac{1}{2}$ S. (S. S. E.) of the latter point are the Ruins of Tefesad, standing close to the sea-shore, and having the high land of Monogere behind them: there is very fair riding off this place, sheltered from westerly winds, but open to the north and east. Having rounded Ras Amousch, a W. by S. $\frac{1}{2}$ S. (West) course will carry you to Zerzahal, a small antique town and castle, built at the foot of an inland mountain. Cape Zerzahal is high, and at a distance may be mistaken for an island. Between Ras Amousch and Cape Zerzahal there is a village, called Shanowah, and the River Wad al Hashem. There are two or three rocky islets to the westward of Cape Zerzahal, which lie at the mouth of a cove, where small vessels run in for shelter against the easterly winds.

From Zerzahal the coast runs W. $\frac{1}{2}$ S. (W. by N. $\frac{1}{2}$ N.) to Cape Tenez, a distance of 40 miles: this also is a projecting point of land, in latitude 36° 33' 0" N., longitude 1° 22' 30" E., and the most remarkable promontory hereabout; for the Points or Headlands of Ras al Tarsé and Ras Wahyah are much less conspicuous, and form no leading object by which this part of the coast may be distinguished. At 23 miles E. N. E. $\frac{1}{2}$ E. (East) from Cape Tenez is the newly discovered Islet Aschâg, or Baldock's Isle; it lies a good mile from the shore, with a passage inside it. There are some little rocks above water about Cape Tenez, to which you will give a berth when going round the Cape. Four miles to the south-westward of the Cape is the Town of

Tenez, and between them are some *rocks* near the shore. There is a *roadstead* before this town, where small coasters ride, sheltered from southerly, easterly, and E. N. Easterly winds, but exposed to all others. The best anchorage is with a saddle-hill bearing S. E. $\frac{1}{4}$ S. (S. S. E.), in from 9 to 6 fathoms water. From *Cape Tenez* your course to *Cape Gileto* will be W. by S. $\frac{3}{4}$ S. (W. $\frac{1}{4}$ N.) 7 leagues: opposite to this *Cape* is the little *Island of Palomas*, or *Colombi*, having a clear passage between them. From *Cape Gileto* the land runs S. W. by W. $\frac{1}{2}$ W. (W. $\frac{3}{4}$ S.) to *Cape Ivi*, a further distance of 14 leagues. This *Cape* will readily be recognised by a remarkable piece of lofty land, called *Jibbel Iddis*, which may be seen to the eastward, and by the *Town of Mostaghanem* on the west. Between *Cape Ivi* and *Mostaghanem* is the *River Shellif*, which is one of the most extensive in the territory of *Algiers*, running easterly above 100 miles, and then turning southerly, losing itself in the interior of the country; off the entrance of this river is a little shoal. The little *Town of Mostaghanem*, which stands about 4 leagues to the south-westward of the *Cape*, was once a place of considerable consequence; it is now of little significance; nevertheless it is the sea-port of *Tremezen*, and situated on the declivity of high lands. The *roadstead* is wholly unsheltered, except from the East and S. E.

ARZEO. From *Cape Ivi* to *Cape Ferrat*, or *Ras al Mishaf*, the course and distance are W. S. W. (W. $\frac{1}{4}$ S.) 10 leagues: the land bends inward, and forms a kind of bay, commonly called the *Bay of Arzeo*, from a little village situated to the south-eastward of *Cape Ferrat*, distant about 7 miles. *Cape Ferrat* may easily be known by a *rock* which lies directly off its point, resembling the steeple of a church. The shore hereabout is all steep-to, and you will have 20 fathoms within a quarter of a mile of the land. As you advance towards *Arzeo*, you will see a *rocky islet* to the south-eastward, appearing like a boat, inside of which is what may be properly denominated the bay. Here you will obtain anchorage, the south *rock* bearing N. E. $\frac{1}{4}$ E. (E. N. E.), and the *granary*, which stands at the further end of the bay, W. $\frac{1}{4}$ S. (W. by N. $\frac{1}{4}$ N.), in from 10 to 5 fathoms, on a bottom of sand, and about 2 or 3 cables' length from the shore. The soundings, as you advance within the bay, are regular, and the greatest part of the bay is bounded by a sandy beach, along which you will see large clusters of sea-weeds, wearing the appearance of *rocks*. The bay is small, and not more than 10 or 12 ships could ride in it with safety; besides which, it is open to easterly and north-easterly winds, which send in a heavy swell; yet it is the best on this part of the coast. There are no fortifications, and a boat may land any where. Corn and cattle may at times be obtained; and no doubt water and wood might be procured, if necessary; but the inhabitants are little to be trusted. The current usually runs to the westward and northward round the bay; but as there are neither rocks nor shoals to be feared, no pilot will be necessary.

From *Cape Cavines*, at *Algiers*, to *Cape Ferrat*, a distance of 58 leagues, the coast, generally speaking, is rocky, precipitous, and bold-to; almost every where there are 50 and 60 fathoms within a short distance of the shore, and at the distance of 2 or 3 leagues from the land, from 190 to 300 fathoms; further off it becomes still deeper, and out of the reach of soundings. There are no dangers whatever in running along the coast, except those we have already described; nor is there any port where large vessels may run into, and lie sheltered in storms from the northward and eastward.

ORAN BAY. From *Cape Ferrat* the land turns W. S. W. (W. $\frac{1}{4}$ S.) 7 miles, to *Point Abuja*, off which are some *rocks*; the same course will carry you to *Cape Falcon*, or *Ras al Harshfar*, in latitude $35^{\circ} 47' N.$, longitude $0^{\circ} 48' W.$ Between these two points of land is the *Bay of Oran*, on the west side of which is a good *roadstead*, capable of containing a large fleet, and having from 12 to 9 fathoms water, good holding ground, and fairly sheltered. The present town is situated on the declivity of a mountain, which overhangs it to the north-westward, and upon which are two castles; these brought S. by W. $\frac{1}{4}$ W. (S. W. by S.), form a good mark for entering the bay. At the *Fortress of Mers El Kiber*, situated at $2\frac{3}{4}$ miles N. W. of the *Town of Oran*, a fixed light has been established since 1839: this light is varied by eclipses, and may be seen 3 miles off. *Cape Falcon* has several *rocks* about it, one of which, above water, is called *Avintar Islet*; these will require a berth in passing. W. $\frac{1}{4}$ S. (W. by N. $\frac{1}{4}$ N.), 4 miles from the *Cape*, is the little *Islet of Plane*.

From *Cape Falcon*, you will steer S. W. by W. $\frac{1}{4}$ W. (W. $\frac{3}{4}$ S.) 4 leagues to *Cape Sigale*. About $5\frac{1}{4}$ miles W. N. W. $\frac{1}{4}$ N. (N. W. $\frac{1}{4}$ N.) from this *Cape* are the *Islands Hubiba*, having a good channel between them and the shore. The coast now turns S. W. $\frac{1}{4}$ W. (W. S. W. $\frac{1}{4}$ W.) to *Cape Figalo*, before which are some *rocky islets*.

called *Ishgoon*. There is good anchorage to be obtained about both these points, and the shore is clear from dangers, except those which are visible. Fresh water may also be procured in the vicinity, if requisite. From *Cape Figalo* the coast continues in a S. S. W. $\frac{1}{4}$ W. (*S. W.*) direction to *Cape Oussa*, and from this Cape a westerly course will carry you to the *Karaka Islands*: these lie close in-shore, and near the little *River de Tremezen*. The space between *Cape Figalo* and *Karaka Islands* is commonly called the *Gulf of Tremezen*, and there are some small villages on the shore; two of these are named *Zareena* and *Talcumbreet*, and the latter has a rivulet near it.

S. W. $\frac{3}{4}$ W. (*W. by S. $\frac{1}{4}$ S.*) from the *Karaka Islands*, distant 14 miles, is *Cape Noa*, in latitude $35^{\circ} 11' 0''$ N., longitude $1^{\circ} 42' 15''$ W. From *Cape Noa* to *Cape Hone*, or *Honayn*, another projecting point, the course and distance will be W. S. W. $\frac{1}{4}$ W. (West) 6 miles; from *Cape Hone* to *Cape Milonia* W. $\frac{3}{4}$ S. (*W. by N.*) 17 miles; and at $2\frac{1}{4}$ miles S. S. W. $\frac{1}{4}$ W. (*S. W.*) of this is the *River Molouyah*: this river is the present boundary between the territory of *Algiers* and the kingdom of *Marocco*. The land, to a great extent hereabout, is wild and uninteresting. There are no harbours or commercial towns, and the interior of the country is chiefly occupied by tribes of wandering Arabs. You may easily know the situation of your vessel by the *Mountain of Noa*, which lies to the southward of the Cape of that name.

5. THE COAST OF MAROCCO, FROM MOLOUYAH RIVER TO TETUAN BAY.

THE RIVER MOLOUYAH falls into the sea in latitude $35^{\circ} 5' N.$, longitude $2^{\circ} 14' W.$, being the only stream of any consequence on this part of the coast. This is a deep and rapid river, mostly impassable from about the 20th of December to the latter end of January. In the summer season it is not only fordable, but in many parts dry. The inland territory is mostly barren, and borders on the desert; but towards the west, within the *Province of Errife*, and as you approach *Tetuan*, it becomes fertile.

ZAPHRAN ISLANDS. W. N. W. (*N. W. $\frac{1}{4}$ W.*), distant 11 miles from the entrance of the *River Molouyah*, is *Cape Agua*, before which, in latitude $35^{\circ} 11' 0''$ N., longitude $2^{\circ} 26' 15''$ W., is a cluster of islands, called *Zaphran*, or the *Zaffarine Islands*: they are three in number, and cover an extent of about a mile and a quarter, east to west; but within them is good anchorage, sheltered from northerly, easterly, and north-westerly winds: the soundings are, 6, 7, and 8 fathoms. The easternmost island is long, narrow, and in form irregular, with several rocks about it; the middle one is of a triangular shape; but the westernmost is the largest and highest, its summit appearing at a distance like the crown of a hat. There are passages between each of these islands; but that between the middle and eastern islands is very narrow and hazardous. The channel between the middle and westernmost islands is above a quarter of a mile wide, and has 15, 16, 17, and 18 fathoms water within it; but there is a rock of only 10 feet water at its entrance; therefore it is seldom frequented. The passage between these islands and the main is more than $\frac{1}{4}$ mile wide, and without any danger whatever; in it are 5, 6, 7, and 8 fathoms water: at 2 cables' length from the shore you will have from 4 to 6 fathoms, and a cable's length from the islands 12, 9, and 8 fathoms, the bottom grass and mud. The tides rise very little, and are chiefly dependent on the winds. The best anchorage is off the middle island, at the distance of a cable's length, in 8 or 9 fathoms; here the ground is of a stiff clay, which holds well: the southern point of the easternmost island will then bear E. $\frac{1}{4}$ S. (*E. S. E.*), and the south point of the westernmost island W. $\frac{3}{4}$ S. (*W. by N.*)

These islands, being out of the general track of shipping going either in or out of the Mediterranean, are but seldom frequented; nevertheless they are capable of affording a safe retreat to vessels in stormy weather. There is good water to be obtained by digging, especially on the central island; and you may land upon the main, in moderate weather, to the leeward of the islands; but that part of the coast is uninhabited, so that you can obtain neither wood, water, nor provisions; and the supply of fish about the islands is moderate. These islands are situated within a deep bay, and bear from *Cape Noa* W. $\frac{1}{4}$ N. (*W. N. W.*), distant 35 miles; and from *Cape Tres Forcas* S. E. by E. (*S. E. $\frac{3}{4}$ S.*), 31 miles.

THE TOWN OF MELILLA is situated near the main land, about W. by N. $\frac{1}{4}$ N.

(N. W. $\frac{1}{4}$ W.), distant 9 leagues from the *Zaffran Islands*, and 10 miles to the southward of the extremity of *Cape Tres Forcas*. It stands upon a little island, which is connected to the shore by a bridge, and contains a town and a fortress. It affords a roadstead for large vessels, and a good harbour within two miles for small craft. Behind the town is the high *Mountain of Karamu*, to the southward of which is a small river, and a sandy beach adjacent.

CAPE TRES FORCAS is in latitude $35^{\circ} 27' 55''$ N., longitude $2^{\circ} 57' 40''$ W., being the extremity of a great promontory, above which stands a tower. The ground near the Cape is foul, and there are several rocky islets about it. You may with a small vessel pass inside of them, but there is no anchorage; a large ship may round the Cape, at the distance of a gun-shot, in perfect safety. About N. $\frac{3}{4}$ W. (N. by E.) from *Cape Tres Forcas*, distant 10 leagues, lies the little *Island of Alboran*, for a description of which the reader is referred to page 16 in the first part of this work. From *Cape Tres Forcas* to *Ceuta* the course is W. $\frac{1}{4}$ N. (N. W. by W. $\frac{1}{4}$ W.) 39 leagues, and to *Tetuan West* (W. N. W. $\frac{1}{4}$ W.) $38\frac{1}{2}$ leagues. Sailing from this Cape the land runs S. W. by W. $\frac{1}{4}$ W. (W. by S.) to the *River Garet*, and from thence nearly West (W. N. W. $\frac{1}{4}$ W.) to *Al Buzema Bay*; this is of a circular form, with a Moorish Town inland, before which is a sandy beach, with two rivulets running into the bay. On the western side of the bay is a rocky islet, generally called the *Garrison Rock*. The ground here is good, and there is no danger of bringing home your anchors; but the bay is quite exposed to the northerly winds. Both the points of entrance to *Al Buzema Bay* are rocky, and must have a good berth in passing: there is also a rock above water, called the *Frayles*, to the westward of *Morro Nuevo*.

From the *Morro Nuevo* a rocky coast extends for 20 miles to *Point Baba*, where there is a little sandy bay; the western point, called the *Penon de Velez*, being a rocky island, surmounted by a fortress. Here is the *Town of Bedis de Gomaira*, situated between two mountains. In the neighbourhood of this place are forests of excellent timber, with which they usually construct their fishing vessels. The above bay is said to afford good shelter on its eastern side from East and E. N. E. winds, and on its western side from westerly winds. It may very easily be recognized by the western point of the entrance being round, with many trees upon it; while on the eastern side, which is 2 miles distant, there is an old building. S. W. by W. (W. by S. $\frac{1}{4}$ S.) about $5\frac{1}{2}$ miles, is a little rocky islet, behind which are the four *Towers of Ali*. Here is a small sandy beach, apparently forming a little harbour; for to the westward are the apparent remains of a mole, now called *Cala Iris*. To the westward is the *River Mostaza*, on the western banks of which is a village of that name, having a custom-house and some little commerce. From hence the rocky coast continues W. N. W. $\frac{1}{4}$ N. (N. W. $\frac{1}{4}$ N.) 15 miles, to the *Point and Tower of Pescadores*. A sandy low shore then commences, which, with very little exception, continues so far as *Tetuan*. *Cape Tetuan*, or *Mazari*, bears from *Point Pescadores* N. W. by W. (N. W. $\frac{1}{4}$ N.) distant 29 miles. From *Cape Mazari* to *Ceuta* your course is N. $\frac{1}{4}$ W. (N. by E. $\frac{1}{4}$ E.), distant 22 miles.

For a description of the *Bays of Tetuan and Ceuta*, the reader is referred to pages 7 and 8 in the beginning of this work. We shall only here add, that with the wind from the N. W., West, or S. W., vessels may anchor with safety in the *Bay of Tetuan*; and that, steering to the southward of *Cape Negro*, clean anchorage may be obtained. But the greatest precaution must be adopted to guard against easterly winds, especially in the winter season; for frequently they come suddenly on, attended with a heavy rolling sea, and therefore all ships should be ready to get under way immediately at its commencement: for if they should continue at anchor, they will run the hazard of being driven on shore, and wrecked; as the swell of the sea, and the revolving currents, frequently will not allow them to weather the *Point of Ceuta*. This point, called *Almina*, is in latitude $35^{\circ} 54'$ N., and longitude $5^{\circ} 17'$ W.

F I N I S.

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